

**CRAWFORD STREET CORPORATION'S RESPONSE  
TO EPA'S INFORMATION REQUEST****GENERAL OBJECTIONS**

1. Crawford has made and continues to make a good faith effort to identify information responsive to the Information Request. Crawford expressly and without qualification reserves the right to amend or supplement its response, including without limitation to provide additional documents.

2. Crawford objects to the Request for Information on the ground that it is grossly overbroad and unduly burdensome in seeking broad categories of information and documents regarding properties and operations within a large geographic area over a period of more than seventy years.

3. Crawford objects to the Request for Information on the ground that it is not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e).

4. Crawford objects to the Request for Information on the ground that it is overbroad and unduly burdensome to the extent that certain requests seek the production of "all" or "any and all" information, data, or documents "regarding" or "relating to" various aspects of the facility. Notwithstanding this objection, Crawford will provide a response covering a reasonable scope for each such request.

5. Crawford objects to the Request for Information on the ground that certain requests seek information or documents not in Crawford's possession, custody, or control.

6. Crawford objects to the Request for Information to the extent that it seeks privileged information, including but not limited to documents and other information protected by the attorney-client privilege, joint defense privilege, common interest privilege, self-evaluative privilege, work product doctrine, or other applicable protection. Notwithstanding this objection, Crawford will provide non-privileged documents responsive to each such request. Enclosed with the copy of this letter is Crawford's privilege log identifying documents protected by the attorney-client privilege and/or work product doctrine. Any inadvertent disclosure by Crawford of material protected by any such privilege or protection is not intended, and shall not be construed, to constitute a waiver of such privilege or protection.

7. Crawford's production of documents does not represent or act as an admission by Crawford that the contents of all documents produced by Crawford are true, correct, or accurate, nor does it act to authenticate such documents for the purposes of admissibility in any administrative or judicial proceeding.

8. Crawford objects to the Request for Information to the extent that it seeks the production of documents and information already in the possession of U.S. Environmental Protection Agency ("EPA"). Crawford further objects to the Request for Information to the extent that it seeks documents and information that Crawford has already submitted to the State of Oregon, or which are otherwise as accessible to EPA as they are to Crawford.

### **SPECIFIC OBJECTIONS TO INSTRUCTIONS AND DEFINITIONS**

1. Crawford objects to Instruction 1 as overbroad, unduly burdensome and not authorized by law to the extent it purports to require Crawford to provide the same information or response multiple times in response to duplicative questions or requests.

2. Crawford objects to Instruction 2 as overbroad, unduly burdensome and not authorized by law to the extent it purports to require Crawford to provide information that is already in EPA's possession.

3. Crawford objects to Instruction 4 on the ground that the phrase "cursory response" is vague and ambiguous. Crawford further objects to Instruction 4 as unduly burdensome and not authorized by law to the extent it purports to require Crawford to seek out information not already within Crawford's possession, custody or control.

4. Crawford objects to Instruction 5 on the ground that the phrase "all persons and documents relied upon for the answer" is vague and ambiguous. Crawford further objects to Instruction 5 as overbroad and unduly burdensome. Crawford further objects to Instruction 5 to the extent it calls for information subject to the attorney-client privilege, joint defense privilege, common interest privilege and/or attorney work product doctrine.

5. Crawford objects to Instruction 7 to the extent that any proposed disclosure of confidential information by EPA would violate applicable laws and regulations.

6. Crawford objects to Instruction 8 on the ground that it violates the right to privacy.

7. Crawford objects to Instruction 9 to the extent it seeks to require Crawford to respond to a request, or portion of a request, for information or documents that is subject to a valid objection.

8. Crawford objects to Instruction 10 to the extent it seeks to require Crawford to provide information or a document that is subject to valid privilege or the attorney work product doctrine.

9. Crawford objects to Instruction 11 and the related declaration as vague, ambiguous, unduly burdensome and not authorized by law to the extent it purports to require one individual to attest to the completeness and accuracy of all responses by Crawford.

10. Crawford objects to the definition of "you" and "Respondent" on the ground that it is vague, ambiguous, overbroad and unduly burdensome. Crawford will construe these terms to mean Crawford and any individual or entity acting at its direction or authorized to act on its behalf.

11. Crawford objects to the definition of "business activity" on the ground that it is vague, ambiguous, overbroad and unduly burdensome.

12. Crawford objects to the definition of "identify" with respect to a natural person on the ground that it is overbroad and unduly burdensome and to the extent that application of this definition would violate the right to privacy.

13. Crawford objects to the definition of "identify" with respect to business entities on the ground that it is overbroad and unduly burdensome.

14. Crawford objects to the definition of "identify" with documents on the ground that it is overbroad and unduly burdensome.

15. Crawford objects to the definition of "Investigation Area" on the ground that it is vague, ambiguous, overbroad and unduly burdensome. Crawford will respond based on its good faith understanding of the boundaries of the "Investigation Area" as defined by EPA.

16. Crawford objects to the definition of "material" and "materials" on the ground that it is vague, ambiguous, overbroad and unduly burdensome.

17. Crawford objects to the definition of "period being investigated" on the ground that it is overbroad and unduly burdensome.

18. Crawford objects to the definition of "Property(ies)" on the ground that it is overbroad and unduly burdensome. Crawford further objects to the definition of "Property(ies)" on the ground that the following terms and phrases used in the definition are themselves undefined and are vague and ambiguous in context: "manages," "operates," "otherwise has an affiliation" and "controlled by."

19. Crawford objects to the definition of "waste" and "wastes" on the ground that it is overbroad and unduly burdensome. Crawford further objects to the definition of "waste" and "wastes" on the ground that the following terms and phrases used in the definition are themselves undefined and are vague and ambiguous in context: "trash," "garbage," "refuse," "by-products," "solid waste," "hazardous waste," "hazardous substances," "pollutants," "contaminants," "sludge," "containers for temporary or permanent holding of wastes," "building debris" and "asbestos containing material."

## RESPONSES TO INFORMATION REQUESTS

**1. Provide the full legal, registered name and mailing address of Respondent.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford Street Corporation  
3200 N.W. Yeon Avenue  
Portland, Oregon 97210

**2. For each person answering these questions on behalf of Respondent, provide:**

- a. full name;**
- b. title;**
- c. business address; and**
- d. business telephone number, electronic mail address, and FAX machine number.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Mark P. Reeve, Esq.  
Reeve Kearns PC  
610 S.W. Alder Street  
Portland, OR 97205-3609  
Tel.: (503) 225-0713  
Fax: (503) 229-1856  
E-mail: mark@ReeveKearns.com

Greg A. Christianson, Esq.  
Bingham McCutchen LLP  
355 S. Grand Ave., Suite 4400  
Los Angeles, CA 90071  
Tel.: (213) 680-6400  
Fax.: (213) 680-6499  
E-mail: greg.christianson@bingham.com

**3. If Respondent wishes to designate an individual for all future correspondence concerning this Site, please indicate here by providing that individual's name, address, telephone number, fax number, and, if available, electronic mail address.**

Response: Subject to the General and Specific Objections stated above, Crawford designates the following individual:

Mark P. Reeve, Esq.  
Reeve Kearns PC  
610 S.W. Alder Street  
Portland, OR 97205-3609  
Tel.: (503) 225-0713  
Fax: (503) 229-1856  
E-mail: mark@ReeveKearns.com

4. **Identify each and every Property that Respondent currently owns, leases, operates on, or otherwise is affiliated or historically has owned, leased, operated on, or otherwise been affiliated with within the Investigation Area during the period of investigation (1937-Present). Please note that this question includes any aquatic lands owned or leased by Respondent.**

Specific Objections: Crawford objects to this request as overbroad and unduly burdensome. Crawford further objects to this request on the ground that the phrases "otherwise is affiliated," "otherwise been affiliated" and "aquatic lands" are vague and ambiguous in context. Crawford will construe this request as seeking information regarding properties owned, leased or operated on by Crawford. Crawford will construe the term "aquatic lands" to refer to land lying below the line of ordinary low water.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has owned portions of a property in the St. Johns District of the City of Portland bordered to the North/Northeast by N. Crawford Street, to the East/Southeast by N. Richmond Avenue, to the South/Southwest by the Willamette River, and to the West/Northwest by N. Burlington Avenue (the "Property"). Portions of the Property have been designated with certain addresses in the 8400 and 8500 blocks of N. Crawford Street. Crawford currently owns the northwest quadrant and a portion of the southwest quadrant of the Property. Other portions of the Property are currently owned by Steel Hammer Properties, LLC and the City of Portland.

From 1991 to 1996, Crawford owned a property in the Guilds Lake Area of the City of Portland, designated by the address 4959 NW Front Avenue (the "Kittridge Property"). The Kittridge Property occupies the southwest corner of the intersection of NW Front Avenue and NW Kittridge Avenue. Crawford no longer owns any portion of the Kittridge Property.

*The following responses relate to the Property and Crawford generally. Responses specific to the Kittridge Property are set forth in an attached Addendum. Documents relied upon to respond to these requests are included in Crawford's accompanying document production or privilege log and also are identified in the attached lists.*

5. **Provide a brief summary of Respondent's relationship to each Property listed in response to Question 4 above, including the address, Multnomah County Alternative Tax lot Identification number(s), dates of acquisition, period of ownership, lease, operation, or affiliation, and a brief overview of Respondent's activities at the Properties identified.**

Specific Objections: Crawford objects to this request as overbroad and unduly burdensome. Crawford further objects to this request on the ground that the phrases "brief summary," "Respondent's relationship," "affiliation," "brief overview," and "Respondent's activities" are vague and ambiguous and in context.

**Response:** Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford acquired the northwest quadrant of the Property on February 2, 1977. This quadrant is bordered to the North/Northeast by N. Crawford Street, to the East/Southeast by N. John Avenue (vacated), to the South/Southwest by an unpaved stretch of N. Bradford Street, and to the West/Northwest by N. Burlington Avenue. On July 31, 1989, Crawford acquired an additional 44,010 square feet of land in the southwest quadrant of the Property from the City of Portland. These two portions total approximately 3.5 acres, less than one quarter of the total Property area.

From March 17, 1988 to February 10, 2006, Crawford also owned the northeast quadrant, the remaining portions of the southwest quadrant and the majority of the southeast quadrant of the Property. Those larger portions of the Property are now owned by Steel Hammer Properties, LLC.

The remaining portions of the Property are owned by the City of Portland. These City-owned portions are comprised of land underlying an unpaved stretch of N. Bradford Street and the railroad spur that bisect the Property into the northern and southern quadrants and a triangle of land adjacent to N. Richmond Avenue and N. Bradford Street. Crawford has never owned either of those City-owned portions of the Property.

Crawford has never engaged in any operations at the Property. Crawford has leased portions of the Property as described in the responses to Requests 11 and 20 below. The tax lot ID numbers for the parcels constituting the Property are as follows:

<u>Base Map No.</u>	<u>Tax Lot No.</u>	<u>Multnomah County Property ID</u>	<u>Acres</u>
329	1N1W12BD-05500	R263881	2.20
	1N1W12BD-05600	R263880	0.14
	1N1W12BD-05700	R263878	1.06
	1N1W12BD-05800	R263876	0.06
	1N1W12BD-05900	R263877	0.46
	1N1W12CA-00200	R263874	9.23
	1N1W12CA-00300	R263875	1.25

- 6. Identify any persons who concurrently with you exercises or exercised actual control or who held significant authority to control activities at each Property, including:**
- a. partners or joint venturers;**
  - b. any contractor, subcontractor, or licensor that exercised control over any materials handling, storage, or disposal activity on the Property; (service**

- contractors, remediation contractors, management and operator contractors, licensor providing technical support to licensed activities);**
- c. any person subleasing land, equipment or space on the Property;**
- d. utilities, pipelines, railroads and any other person with activities and/or easements regarding the Property;**
- e. major financiers and lenders;**
- f. any person who exercised actual control over any activities or operations on the Property;**
- g. any person who held significant authority to control any activities or operations on the Property;**
- h. any person who had a significant presence or who conducted significant activities at the Property; and**
- i. government entities that had proprietary (as opposed to regulatory) interest or involvement with regard to the activity on the Property.**

Specific Objections: Crawford objects to this request on the ground that the phrases “concurrently with you,” “exercises or exercised actual control,” “significant authority to control,” “materials handling, storage, or disposal activities,” “other person with activities and/or easements,” “major financiers and lenders,” “significant presence” and “significant activities” are vague and ambiguous and in context. Crawford will construe this request as seeking information regarding any possessory interests and operations at the Property during the period that Crawford has held an ownership interest in portions of the Property from February 2, 1977 to the present.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Numerous parties have owned, leased and operated on portions of the Property. Set forth below is responsive information regarding the period that Crawford has owned portions of the Property from 1977 to the present. Information regarding owners, lessees and operators during other periods is included in the responses to Requests 10 and 11.

6(a): Partners and Joint Venturers

Crawford is not a partner in any partnership nor is Crawford engaged in any joint venture. After a reasonable search and diligent inquiry, Crawford has not identified any responsive information regarding any other party's partners or joint venturers.

6(b): Contractors, Subcontractors and Licensors

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

6(c): Parties Subleasing Land or Equipment

Information regarding lessees of the Property is included in the responses to Requests 11 and 20.

6(d): Utilities, Pipelines, Railroads and Easements on the Property During Crawford's Ownership

Set forth below is information regarding utilities, pipelines, railroads and easements during the period that Crawford owned portions of the Property. Information regarding other owners and operators is included in the responses to Requests 6, 10, 11 and 20.

*City of Portland/Union Pacific Railroad Company Rail Spur*

The Property is bisected by a strip of land owned by the City of Portland that constitutes an unpaved stretch of N. Bradford Street. This land runs from the West/Northwest to the East/Southeast across the Property. During the late 1800s, the City of Portland granted an easement to Oregon Railroad and Navigation Company to construct and operate a railroad spur on N. Bradford Street. Oregon Railroad and Navigation Company, later known as Oregon-Washington Railroad and Navigation Company, was a subsidiary of Union Pacific Railroad Company. During the 1930s, Union Pacific Railroad Company reportedly absorbed this subsidiary and took over its operations. Apparent releases along this railroad spur on the City-owned land are discussed in the response to Request 8.

*Union Pacific Railroad Company Diesel Pipeline*

Union Pacific Railroad Company also owns and formerly operated an underground 8-inch diameter diesel pipeline that runs adjacent to the Property from the intersection of N. Richmond Avenue and the railroad spur to N. Crawford Street, where it turns to the West/Southwest. From 1977 until at least 2001, Union Pacific Railroad Company used this pipeline to deliver diesel fuel to a former locomotive fueling facility.

*City of Portland Turnaround Easement*

On January 20, 1997, the City of Portland acquired a permanent turnaround easement over portions of the Property adjacent to N. Burlington Avenue for the purpose of broadening the street to allow turnaround space into the City of Portland's parking lot at its adjacent Bureau of Environmental Services Laboratory west of the Property.

*Public Water and Sewer Lines*

The City of Portland provides water and sanitary sewer services to the Property through underground lines owned and operated by the City. Water and sanitary sewer lines run beneath N. Crawford Street just north of the Property. An additional water line runs beneath the City-owned strip of land adjacent to the rail spur that bisects the Property.

*Portland General Electric Company Electrical Power Lines*

On June 14, 1974 and February 7, 1975, Portland General Electric Company acquired easements for the right to enter upon and to erect, maintain, repair and operate electrical power lines and appurtenant signal or communication lines in the northern quadrants of the Property along N. Crawford Street. These easements give Portland General Electric Company the right to restrict the foliage growth by the use of chemical sprays.



*Other Rights-of-Way*

Various other portions of the Property have been subject to ingress, egress and right-of-way easements as discussed in the responses to Requests 10 and 11 below. These easements include a February 1902 right of way granted to Oregon Railroad & Navigation Company adjacent to its rail spur, a July 1923 easement granted to Western Wool Warehouse in the southeast portion of the Property, a November 1962 easement granted to Portland Manufacturing Company across portions of vacated N. John Avenue, and a January 29, 1988, easement to Manufacturing Management, Inc. for ingress and egress over certain land adjacent to the rail spur.

6(e): Major Financiers And Lenders During Crawford's Ownership

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

6(f)-(g): Persons Who Exercised Actual Control Over, or Had Authority to Control, Activities or Operations on the Property During Crawford's Ownership

During the period that Crawford has owned portions of the Property, various parties have operated at the Property, including:

- Brand S Corporation
- Brand S Lumber Co.
- Brand S Lumber Mills, Inc.
- CFMW, LLC, doing business as Columbia Forge & Machine Works
- City of Portland
- City of Portland by and through the Portland Development Commission
- Columbia Forge & Machine Works, Inc.
- Custom Metal Cutting, Inc.
- Energy Guard Corporation
- Fibron Corporation
- Johnson Manufacturing, Co.
- Lampros Steel, Inc.
- Milt Lampros, Inc.
- Reconstruction Finance Corporation
- Steel Hammer Properties, LLC
- TLS Steel Products, Inc.
- Union Pacific Railroad Company

These parties' operations, ownership and/or leasehold interests are discussed in greater detail in the responses to Requests 10, 11 and 20 below.

6(h): Persons Who Had a Significant Presence or Conducted Significant Activities at the Property During Crawford's Ownership

In addition to information provided in response to Request 6(f)-(g), current and former owners and operators of nearby parcels or easements have, or may have, impacted the Property as a result their off-site operations, including:

- City of Portland, as owner of the adjacent former lumber mill site and black sand/refuse fill areas west of the Property
- St. Johns Lumber Company, as a former owner and operator of adjacent former lumber mill operations west of the Property
- Portland Lumber Mills, Inc., as a former owner and operator of adjacent former lumber mill operations west of the Property
- Metro/Port of Portland, as owners of the adjacent Willamette Cove site southeast of the Property
- McCormick & Baxter Creosoting Company, as former owner and operator on the McCormick & Baxter Superfund Site southeast of the Property
- Portland Manufacturing Company, as former owner and operator of adjacent plywood mill operations southeast of the Property
- Plylock Corporation, as former operator of the adjacent plywood mill operations southeast of the Property
- St. Johns Marine, as owner and operator of an adjacent boat repair shop north of the Property
- St. Johns Truck and Equipment, as owner and operator of a truck repair operation north of the Property
- Union Pacific Railroad Company, as owner and operator of an adjacent diesel pipeline north and east of the Property.

These parties' operations, ownership and/or leasehold interests in adjacent or nearby properties are discussed in greater detail in the response to Request 8 below.

6(i): Government Entities That Had Proprietary Interests or Involvement on the Property During Crawford's Ownership

During the period that Crawford has owned portions of the Property, various government entities have owned or operated on the Property, including:

- City of Portland, Housing Authority of Portland
- City of Portland, by and through the Portland Development Commission
- City of Portland, Environmental Services
- State of Oregon, Department/Division of State Lands

The possessory interests and/or operations of these entities are discussed in greater detail in the responses to Requests 10 and 11 below.

7. **Identify and describe any legal or equitable interest that you now have, or previously had in each Property. Include information regarding the nature of such interest; when, how, and from whom such interest was obtained; and when, how, and to whom such interest was conveyed, if applicable. In addition, submit copies of all instruments evidencing the acquisition or conveyance of such interest (e.g., deeds, leases, purchase and sale agreements, partnership agreements, etc.).**

Specific Objections: Crawford objects to this request on the ground that the phrase "legal or equitable interest" is vague and ambiguous in context. Crawford will construe this phrase to mean an ownership, leasehold or other possessory interest in real property.

Response: Subject to General and Specific Objections stated above, Crawford responds as follows:

On February 2, 1977, Crawford, then known as RaM Manufacturing Industries, Inc., acquired title to the northwest quadrant of the Property through a merger with The Skookum Company. This northwest quadrant constitutes approximately 2.5 acres or about 18 percent of the total Property area.

For more than ten years after Crawford acquired the northwest quadrant of the Property, the remaining 82 percent of the Property was owned by other parties. In 1979, then owner Brand S Lumber Co. sold the larger portions of the Property to the City of Portland by and through the Portland Development Commission as part of a transaction that also included neighboring parcels east and west of the Property. This land acquired by the City included the entire riverfront portion of the Property as well as the northeast quadrant abutting N. Crawford Street and N. Richmond Avenue. The City of Portland owned these larger portions of the Property for nine years from 1979 until 1988.

On January 29, 1988, the City of Portland conveyed the majority of the southwest, southeast and northeast quadrants of the Property to Crawford's parent entity, Manufacturing Management, Inc., which conveyed that land to Crawford on March 17, 1988. Various portions of the Property, however, were excluded from the City's conveyance, including 1.03 acres of land in the southwest quadrant of the Property, the unpaved stretch of N. Bradford Street that bisects the Property and other land underlying, or adjacent to, vacated stretches of N. Richmond Avenue and N. Burlington Avenue. On July 31, 1989, the City of Portland conveyed the 1.03 acres of land in the southwest quadrant to Crawford, but retained its interest in the other portions of the Property.

On February 10, 2006, Steel Hammer Properties, LLC purchased from Crawford the portions of the Property that the City of Portland conveyed to Crawford's parent in January 1988. Since then, Steel Hammer Properties, LLC has owned the majority of the Property, including the entire northeast quadrant and most of the southeast and southwest quadrants. Crawford currently owns the northwest quadrant and the 1.03 acres of land in the southwest quadrant. The City of Portland owns the unpaved stretch of N. Bradford Street that contains the Union Pacific rail spur and a triangle of land at the intersection of N. Richmond Avenue and N. Bradford Street.

Documents evidencing these acquisitions and conveyances are included in Crawford's accompanying document production.

8. **If you are the current owner and/or current operator, did you acquire or operate the Property or any portion of the Property after the disposal or placement of hazardous substances, waste, or materials on, or at the Property? Describe all of the facts on which you base the answer to this question.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Set forth below is information identified by Crawford regarding (I) historical operations at the Property; (II) the importation of "black sand" fill material at the time the City of Portland acquired portions of the Property; and (III) off-site sources.

I. General Historical Operations

Prior operations are summarized below for each of the four quadrants of the Property and the City of Portland's strip of land and Union Pacific Railroad Company's rail spur.

*Southwest Quadrant*

The southwest quadrant of the Property is bordered to the North/Northeast by an unpaved stretch of N. Bradford Street, to the East/Southeast by N. John Avenue (vacated), to the South/Southwest by the Willamette River, and to the West/Northwest by N. Burlington Avenue. Crawford had no ownership interest in this quadrant prior to March 1988.

Prior to the late 1970s, the southwest quadrant was used primarily for lumber storage and related facilities by a lumber mill centered on adjacent land west of the Property. The portions of the operation that extended onto the Property also included a planing mill and machine shop. The off-site portions of the mill are described in Part III of this response.

Prior assessments concluded that the primary potentially hazardous substance associated with these operations is lubricating oil. Crawford has not identified any information, however, regarding any release of potentially hazardous substances in this quadrant except as noted in the response to Request 64 regarding the black sand fill. Soil and groundwater samples in this quadrant were non-detect for petroleum hydrocarbons except one groundwater sample that contained trace amounts (0.0885 ug/l) of naphthalene as discussed in the response to Request 71. No dip tanks or wood preservative storage areas were identified on the Property. It appears that the mill was fueled by sawdust, and no fuel tanks have been identified in this quadrant. Several pipes protruding from the river bank were found not to contain hazardous materials and were identified as likely distribution lines for the mill's fire protection system.

Around the time that the City of Portland acquired most of the Property in 1979, "black sand" was deposited in this quadrant for use as fill. This black sand is discussed in Part II

of this response. During the period of the City's ownership during the 1980s, it appears that this quadrant was unfenced with no significant controls on access.

### *Southeast Quadrant*

The southeast quadrant of the Property is bordered to the North/Northeast by N. Bradford Street, to the East/Southeast by N. Richmond Avenue, to the South/Southwest by the Willamette River, and to the West/Northwest by N. John Avenue (vacated). Crawford had no ownership interest in this quadrant prior to March 1988.

Prior to the late 1960s, the southeast quadrant was used primarily for storage. The earliest identified uses include a small lumber mill, wagon shed and horse barn. Prior to mid 1920s, a dock was built in this quadrant to load barges and store sand and gravel. From the 1920s until at least the 1950s, a wool warehouse occupied the western portion of this quadrant. From the 1930s to the 1960s, Portland Manufacturing Company and Plylock Corporation, owners and operators of an adjacent plywood mill east of the Property, were using buildings in the southeast quadrant for plywood storage. The off-site portions of this plywood mill are described in Part III of this response.

Prior assessments concluded that the primary potentially hazardous substance associated with these operations is lubricating oil. Soil and groundwater samples collected in 2006 were non-detect for petroleum hydrocarbons except one soil sample in which lube oil was detected at 445 parts per million in the 0-4 foot sample as discussed in the response to Request 71. Crawford has not identified any additional information regarding any release of lubricating oil, nor has Crawford identified any information regarding any release of PCBs or chlorinated solvents in this quadrant. While it appears that a septic system may have existed in this quadrant, soil and groundwater sampling in the area of the system identified no impacts. An underground storage tank that apparently contained diesel was removed from the property in 1988. Oil and grease were detected in soil samples just below the tank at 100 mg/kg and 200 mg/kg.

Most of the buildings in this quadrant were demolished around the time that the City of Portland acquired this quadrant in 1979. Debris from this demolition was placed along the shoreline. As with the southwest quadrant, it appears that the southeast quadrant was unfenced for most of the 1980s with no significant controls on access during the City's period of ownership.

### *Northeast Quadrant*

The northeast quadrant of the Property is bordered to the North/Northeast by N. Crawford, to the East/Southeast by N. Richmond Avenue, to the South/Southwest by N. Bradford Street, to the West/Southwest by N. John Avenue (vacated). Crawford acquired an ownership interest in this quadrant in March 1988.

Prior uses of the northeast quadrant include single-family residences, a few intermixed businesses and storage facilities. Through the 1930s, single family homes, small businesses and vacant lots were gradually replaced by lumber storage areas. By 1950, an

automobile repair shop was operating on the western portion of this quadrant. In about 1958, Portland Lumber Mills, Inc. constructed a 40,000 square-foot lumber storage building that nearly covered the western half of the quadrant. The eastern portion of this quadrant was used for outdoor log storage to the early 1970s. The City of Portland acquired this quadrant in 1979, using the storage building as a maintenance shop.

Prior assessments have concluded that the primary potentially hazardous substance associated with these operations is lubricating oil. Crawford has not identified any information regarding any release of lubricating oil to the soil or groundwater in this quadrant. Soil and groundwater samples in this quadrant were non-detect for all petroleum hydrocarbons analyzed as discussed in the response to Request 71. Crawford has not identified any information regarding any underground storage tanks or any releases of PCBs or chlorinated solvents in this quadrant.

#### *Northwest Quadrant*

The northwest quadrant of the Property is bordered to the North/Northeast by N. Crawford, to the East/Southeast by N. John Avenue (vacated), to the South/Southwest by N. Bradford Street, to the West/Southwest by N. Burlington Avenue. Crawford acquired an ownership interest in this quadrant in February 1977.

Operations in the northeast quadrant have primarily focused on metal working and related storage and office space. By the 1920s, a logging equipment supplier was operating in the western half of this quadrant. By 1950, a blacksmith foundry, two furnaces, a hammer forge and related machine shop were operating in this area, along with chain manufacturing operation with five forge furnaces. These buildings were expanded in 1955, and a 1,700 square-foot pattern shop was then operating in the eastern half of the quadrant.

Prior assessments have concluded that the primary potentially hazardous substance associated with these operations is lubricating oil. Soil and groundwater samples collected in this quadrant in 2006 were non-detect for the petroleum hydrocarbons analyzed except for one sample taken from a soil boring, in which lube oil was detected 91.5 parts per million as discussed in the response to Request 71 below. Crawford has not identified any further information regarding any releases of lubricating oil, nor has Crawford identified any information regarding any release of PCBs or chlorinated solvents into the soil or groundwater in this quadrant.

Two underground storage tanks were formerly located in the eastern portion of this quadrant: one 1,000 gallon steel tank installed in the 1950s used to store gasoline, and another 1,000 gallon steel tank installed in the late 1960s that was used to store Bunker C oil. Both tanks were removed in 1987 and adjacent soil was sampled. Diesel was not detected adjacent to either of these tanks. Gasoline hydrocarbons were detected adjacent to the gasoline tank at concentrations of 16 mg/kg. Lead was not detected above background levels at either location.

*City of Portland's Strip of Land/Union Pacific Rail Spur*

A 2000 environmental assessment noted that soil staining was observed along Union Pacific Railroad Company's railroad spur on the City-owned strip of land that bisects the Property. This staining was described as consistent with releases from diesel locomotives and spills of products from railroad cars. During 2001 and a few occasions thereafter, a Union Pacific Railroad Company crews have also been observed dumping debris including tires, treated wood, asphalt and soil from the railroad spur onto the adjacent parcels owned by Crawford. Tenants on the Property subsequently removed the debris and contacted Union Pacific Railroad Company.

II. Black Sand Fill Material

By the late 1970s, the City of Portland identified the southern quadrants of the Property and adjacent river-front land for the site for a new housing project. By February 1979, the City had acquired this land from Brand S Lumber Co. Around that time, the mill buildings on the Property and adjacent land were demolished, apparently to make way for the City's planned housing development.

Following the demolition, material was imported to the Property and adjacent land for use as fill. Rather than importing clean soil, however, waste material was obtained from a local sandblasting company. This waste was reportedly composed of spent sandblast grit that had been used to clean oil tanks ("black sand"). A later investigation concluded that this black sand was deposited up to six feet deep along portions of the Property. This black sand was described as appearing oily when it was placed on the Property. Shortly thereafter, winter rains reportedly flushed oily residue from the fill, creating an oily sheen across the Willamette River. The U.S. Coast Guard subsequently issued a warning for this oil sheen. It appears that the sheen subsided after the initial incidents.

Crawford has no information as to any investigation conducted by the City of Portland into the content of the black sand during the nine years that the City owned these portions of the Property, nor is Crawford aware of any efforts by the City to assess or address the potential impacts caused by the black sand on the Property.

Crawford's efforts to investigate and address the black sand are discussed in the response to Request 64. As noted, below, the black sand material later removed from the Property was characterized as non-hazardous for purposes of land-based disposal.

III. Potential Off-Site Sources

Various industrial operations have been conducted on neighboring sites. Potential off-site sources include:

*Former Lumber Mill on Adjacent City-Owned Land*

From the 1920s into the 1970s, a lumber mill operated on adjacent land to the west of the Property. While this operation also extended onto the southern portions of the Property,

the saw mill itself was located on the adjacent property, as were the boiler, steam and natural gas dry kilns and a large loading dock. Over the decades, other businesses also operated on this adjacent property, including a box factory and steel fabricator. Prior assessments have concluded that the primary potentially hazardous substances associated with those operations on this adjacent land include lubricating oils, cutting oils, heating oils, motor fuel oils, paints, PCBs in transformers and cutting oils, solvents, and wood treating preservatives such as pentachlorophenol ("PCP") or tetrachlorophenol ("TCP").

Oregon state records indicate that two 10,000-gallon gasoline and diesel tanks and one 10,000-gallon diesel oil tank were installed on that adjacent land in 1972. Two above-ground 100 and 500-gallon heating oil tanks were later installed on that property in 1976. Crawford has not identified any record of any decommissioning permits for those tanks. The lumber mill buildings were demolished in the late 1970s. This adjacent land was subsequently acquired by the City of Portland and is now occupied by the City's Bureau of Environmental Services Laboratory.

#### *Black Sand/Black-Green Sand on Adjacent City-Owned Land*

As noted above, black sand was deposited at the Property around the time the City of Portland acquired these parcels in 1979. At the same time, black sand was also deposited on the adjacent, City-owned land west of the Property. This material was spread throughout a significant portion of the western part of that adjacent site and in smaller pockets in other locations on the site. In addition, black-green sand was also deposited in the western portions of this adjacent land. Prior assessments concluded that this black-green sand is chemically different from the black sand, potentially containing chlorinated compounds not present in the black sand deposited on the Property. By 1994, approximately 1,500 cubic yards of black sand fill had been removed from the adjacent City-owned land and hauled to landfills.

#### *Uncontrolled Refuse on Adjacent City-Owned Land*

For a period of at least several years prior to the late 1980s, access to the City of Portland's land immediately west of the Property was uncontrolled. During that time, unknown persons reportedly dumped house-hold trash, yard and demolition debris, and other refuse in an area covering roughly 100 by 300 feet adjacent to the Willamette River. Crawford has no information as to the ultimate disposition of this refuse field on the adjacent, City-owned land.

#### *Adjacent Willamette Cove Site*

Immediately southeast/upstream of the Property is Willamette Cove, a State of Oregon Confirmed Release List ("CRL") site. Operations on this adjacent land included the plywood operations discussed above, as well as a former lumber mill, barrel manufacturer and Port of Portland shipbuilding/repair facility. Based on information from the Oregon Department of Environmental Quality ("DEQ"), those operations contaminated the soil and groundwater on the adjacent site as well as Willamette River sediments in the vicinity. Contaminants of concern include metals, PAHs, VOCs, PCBs



and PCP. PCBs were detected in groundwater on this site, with concentrations as high as 2.5 ug/l approximately 1,600 feet from the eastern edge of the Property.

#### *Upstream McCormick & Baxter Site*

The McCormick & Baxter site lies adjacent to the eastern border of the Willamette Cove site, upstream from the Property. McCormick & Baxter Creosoting Company operated on the site from 1944 to 1991, treating wood products with creosote, pentachlorophenol, and inorganic preservative solutions. The operation discharged wastewater directly to the Willamette River and dumped other process wastes on various portions of the site. DEQ and EPA have concluded that the soil and groundwater at the McCormick & Baxter site, and the sediments in the adjacent Willamette River are contaminated as a result of those operations. Contaminants linked to this upstream operation include arsenic, chromium, copper, creosote, dioxins, oil, pentachlorophenol, and PAHs. In June 1994, EPA listed the McCormick & Baxter on the National Priorities List. Remediation at the McCormick & Baxter site is ongoing, with additional remedial activities planned to address on-site and off-site contamination and continued migration of contaminants.

#### *Upgradient Railroad Corridor*

During wet weather, stormwater flows onto the Property from the upgradient rail corridor owned by the City of Portland along the Union Pacific Railroad Company's easement. This stormwater originates from N. Richmond Avenue, upgradient sources and from the rail corridor itself. This combined stormwater infiltrates the ground on the rail corridor on the Property and, on occasion, sheet flows into the southwest quadrant. During periods of very heavy rainfall, the stormwater from the rail corridor continues to sheet flow across the southwest quadrant until it reaches the stormwater detention ponds located on the adjacent City of Portland site west of the Property.

#### *St. Johns Truck and Equipment Company*

St. Johns Truck and Equipment and Hildebrand Truck & Equipment operate a truck repair business across N. Crawford Street north of the Property. The central portion of this site is an unpaved area used to store disassembled truck parts. To the south of that area lies a heavily-stained, uncovered wash pit just north of N. Crawford Street, which drains to a sump that likely leads to the City's storm water or sanitary sewer system.

Hazardous substance reports filed with the State Fire Marshal indicate that St. Johns Truck and Equipment handles substantial quantities of hazardous substances including waste oil, motor fuel, fuel oil, and welding gasses. Storm water runoff from those operations previously flowed onto the western portion of the Property, then eastward through a work yard toward N. John Avenue, and continuing to the City-owned land at Union Pacific Railroad Company's rail spur where it ponded and infiltrated the Property. During periods of heavy rainflow, this runoff flowed across the southwest quadrant as described in the response to Request 13(i).

In 1997, Crawford constructed an asphalt berm along N. Crawford Street to prevent stormwater runoff from St. Johns Truck and Equipment's operation and other off-site sources from entering the Property. Crawford's efforts to control this off-site stormwater are discussed in greater detail in the response to Request 13(i) below.

*St. Johns Marine Company*

St. Johns Marine Company operates a boat repair business along N. Richmond Avenue just north of N. Crawford Street. St. Johns Marine repairs boats and boat motors, which are often stored on unpaved ground. During periods of wet weather, stormwater from this operation may flow onto the Property in the northeast quadrant or from the intersection of N. Richmond Avenue and the railroad corridor.

*Union Pacific Railroad Company Diesel Pipeline*

As discussed in response to Request 6(d) above, Union Pacific Railroad Company owns and formerly operated an underground 8-inch diameter diesel pipeline that runs along N. Crawford Street and N. Richmond Avenue immediately upgradient from the Property. Crawford has no information regarding any testing to determine the soundness of this pipeline or to assess potential releases.

9. **At the time you acquired or operated the Property, did you know or have reason to know that any hazardous substance, waste, or material was disposed of on, or at the Property? Describe all investigations of the Property you undertook prior to acquiring the Property and all of the facts on which you base the answer to this question.**

Specific Objections: Crawford objects to this request on the ground that the phrases "have reason to know" and "all investigations of the Property" are vague and ambiguous in context. Crawford will construe this request as seeking information regarding Crawford's knowledge as to environmental conditions at the Property at the time that Crawford acquired an ownership interest in portions of the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

In 1987 to early 1988, Sweet-Edwards/EMCON, Inc. ("SE/E") conducted an environmental evaluation of the southern half and northeast quadrant of the Property for Manufacturing Management, Inc. At that time, these portions of the Property were owned by the City of Portland.

Based on a site visit, interview and review of title reports and aerial photographs, SE/E identified prior operations, including lumber mills and warehouses. SE/E also identified a potential septic tank and drainfield in the southeast quadrant and noted that black sand had been used as fill in the southern portion of the Property when mill buildings were removed in the late 1970s. SE/E later expanded its evaluation to include identification of

underground storage tanks, field sampling in specific areas, and analysis of soil and groundwater samples.

SE/E evaluated the following potential on-site sources: the black sand fill; six capped pipes along the river bank; the former mill operations; possible underground storage tanks; and a former septic tank and drainfield. SE/E also evaluated the following potential off-site sources: Union Pacific Railroad Company's diesel pipeline; former underground storage tanks in the northwest quadrant; St. Johns Truck and Equipment Repair; apparent oil staining adjacent to the rail spur on the City-owned strip of land; and oil compressor blowdown in the northwest quadrant.

SE/E collected samples of the black sand and water from certain of the capped pipes and drilled test borings in the black sand fill area and suspected drainfield. SE/E also dug test pits in the black sand area and near suspected tanks. A geophysical survey revealed one underground storage tank in the southwest quadrant near the former plywood mill facilities. SE/E removed the tank and sampled the excavation.

SE/E summarized its findings in a report dated June 4, 1988. None of the test pit soil samples indicated contamination except a single sample of dry sand with concentrations of 294 parts per million total organic halogens and 310 parts per billion of total xylenes. Two surface grab samples in the black sand area contained low weight percentages of oil and grease, which SE/E concluded was perched atop a silt layer at a depth of 6 feet. Moreover, shallow groundwater beneath the black sand fill and suspected drainfield showed no environmental impacts, and the black sand passed toxicity tests. The tank removed from the Property appeared to contain diesel. No evidence of leaks was found, and sampling results from the excavation indicated no environmental impacts.

SE/E's methodology and findings are described in greater detail in its June 4, 1988 Environmental Evaluation report, which is included in Crawford's accompanying document production.

- 10. Identify all prior owners that you are aware of for each Property identified in Response to Question 4 above. For each prior owner, further identify if known, and provide copies of documents you may have regarding:**
- a. the dates of ownership;**
  - b. all evidence showing that they controlled access to the Property; and**
  - c. all evidence that a hazardous substance, pollutant, or contaminant, was released or threatened to be released at the Property during the period that they owned the Property.**
  - d. any information or documents you may have regarding but not limited to the following entities:**
    - i. Brand S Lumber;**
    - ii. City of Portland;**
    - iii. Manufacturing Management Inc.;**
    - iv. Oregon Barrel Co.;**
    - v. Portland Chain Manufacturing;**

- vi. **Portland Lumber Mills, Inc.;**
- vii. **Portland Manufacturing Co.;**
- viii. **RaM Management Industries, Inc.;**
- ix. **Skookum Logging Supply Company;**
- x. **Star Sand;**
- xi. **Steel Hammer Properties LLC; and**
- xii. **St. Johns Lumber Company.**

Specific Objections: Crawford objects to this request on the ground that the phrases “controlled access” and “released or threatened to be released” are vague and ambiguous in context. Crawford also objects to subpart “d” of this request as overbroad, unduly burdensome and not authorized by law to the extent that it seeks information that is not “relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of,” “[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant,” or “the ability of a person to pay for or to perform a cleanup” at the facility. 42 U.S.C. § 9604(e). Crawford will construe subpart “d” as seeking information regarding the listed entities’ possessory interests in, and operations on, the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

10(a)-(c): Prior Owners

Based on information identified by Crawford, the following other entities have owned portions of the Property. Responsive documents regarding the entities below are included in Crawford’s accompanying document production.

*City of Portland*

The City of Portland has held ownership interests in portions of the Property dating back as far as the earliest identified title records. The City of Portland’s interests in the Property have varied over time, with the City owning as much as eighty percent of the Property during the 1980s.

As noted above, the Property is bisected by a strip of land owned by the City of Portland, which constitutes an unpaved stretch of N. Bradford Street. Since the late 1800s, a rail spur owned and operated by Union Pacific Railroad Company and its predecessors has run through the Property on this City-owned land. In a 2000 assessment, soil staining was observed along the rail spur. This staining was described as consistent with petroleum hydrocarbon releases from diesel locomotives and spillage of products from railroad cars.

From an indeterminate date until May 1943, the City of Portland also owned two lots in the northeast quadrant of the Property at the corner of N. Crawford Street and N. Richmond Avenue. In May 1943, the City sold those lots to Sanford Wells Spratlen and Marian Spratlen. From at least as early as 1911, a 9,000 square-foot machine shop

and foundry fueled by coal was operating in the northeast corner of the Property. Crawford has not identified any information as to whether the City of Portland was involved in those or other operations in the northeast quadrant.

In the late 1970s, the City of Portland identified the southern portions of the Property and adjacent river-front land as the potential location for a new housing development. In February 1979, the City, acting by and through the Portland Development Commission, purchased three of the four quadrants of the Property and adjacent off-site parcels from Brand S. Lumber Co. This land included the two riverfront quadrants of the Property as well as the northeast quadrant abutting N. Crawford Street and N. Richmond Avenue.

As discussed above in Part II to the response to Request 8, the mill buildings previously located in the southern portions of the Property were destroyed around the time the City of Portland acquired that land, and black sand was deposited at the Property for use as fill. While the U.S. Coast Guard reportedly issued a warning for an oil slick emanating from this black sand, Crawford has not identified any information regarding any actions taken by the City of Portland to investigate or address this black sand material during the nine years that the City owned those portions of the Property.

The City of Portland owned the majority of the Property for nine years from 1979 until January 1988. During that period, the City used portions of the Property for its own operations, including the 40,000 square foot former lumber storage building in the northeast quadrant, which the City Development Commission used as a maintenance shop. The City also apparently leased portions of the Property to operators including Fibron Corporation and Energy Guard Corporation, which both operated in the southeast quadrant of the Property. During the period that the City of Portland owned the majority of the Property, at least most of these areas were unfenced with no controls on access.

On January 29, 1988, the City of Portland sold the majority of its land at the Property to Crawford's parent entity, Manufacturing Management, Inc., which conveyed that land to Crawford on March 17, 1988. Various parcels, however, were excluded from this conveyance, including approximately one acre of land in the southwest quadrant adjacent to the Willamette River. This land in the southwest quadrant was retained by the City pending environmental assessments of the black sand as discussed in the response to Request 64. In July 1989, the City of Portland conveyed this additional land to Crawford. The City, however, still retains certain other portions of the Property, including the vacated stretch of N. Bradford Street on which the rail spur is located and other land underlying, or adjacent to, vacated stretches of N. Bradford Street, N. Richmond Avenue and N. Burlington Avenue.

In March and April 1990, the City of Portland and Crawford each individually granted quitclaim deeds to the State of Oregon Division of State Lands, releasing all rights to certain submerged land lying below the line of ordinary low water along the river bank adjacent to the Property. In March 1990, the State of Oregon Division of State Lands granted quitclaim deeds to the City of Portland and Crawford releasing all rights to certain land lying above the line of ordinary low water.

In January 1991, the City of Portland, Environmental Services, acquired an outfall easement from the State of Oregon, by and through its Division of State Lands, allowing the City to construct, maintain, operate and replace a sewer outfall into the Willamette River over State-owned submerged land located near River Mile 6.0. The City of Portland thereafter constructed its City Outfall 52 over this easement, as described in response to Request 13(i) below.

In January 1997, the City of Portland acquired a permanent turnaround easement over the portions of the Property adjacent to N. Burlington Avenue for the purpose of broadening the street to allow additional turnaround space into the City of Portland Bureau of Environmental Services Laboratory adjacent to the Property.

*Union Pacific Railroad Company (formerly Oregon Washington Railway and Navigation Company and Oregon Railroad and Navigation Company)*

During the late 1800s, Oregon Railroad and Navigation Company constructed a railroad spur on the City-owned strip of land at N. Bradford Street that bisects the Property. At that time, Oregon Railroad and Navigation Company was a subsidiary of Union Pacific Railroad Company. In February 1902, Oregon Barrel Co. deeded a right of way over certain portions of the Property to Oregon Railroad and Navigation Company. It appears that Oregon Railroad and Navigation Company changed its name in about 1910 to the Oregon Washington Railway and Navigation Company. This entity continued to operate as a subsidiary until the mid 1930s, when it reportedly was absorbed into Union Pacific Railroad Company.

As noted above, a 2000 environmental assessment identified soil staining along the spur that was characterized as typical of railroad operations was observed along the rail spur. This staining was described as consistent with petroleum hydrocarbon releases from diesel locomotives and spillage of products from railroad cars.

*State of Oregon Department/Division of State Lands*

The State of Oregon Department of State Lands, known as the Oregon Division of State Lands prior to 2003, owns the submerged lands in the Willamette River adjacent to the Property.

*Owners of Former Residential Parcels*

From the early 1900s through the 1930s, several single-family residences were located on the Property.

*Oregon Barrel Co.*

Oregon Barrel Co. owned certain portions of the Property during the early years of the Twentieth Century. In February 1902, Oregon Barrel Co. deeded a right of way to Oregon Railroad and Navigation Co.

*St. Johns Lumber Company*

St. Johns Lumber Company owned and operated the lumber mill that extended onto the southern portions of the Property until 1930. As of 1905, St. Johns Lumber Company was operating a small lumber mill and storage area. By the late 1920s, St. Johns Lumber Company's operation had expanded to cover the adjacent property to the west of the Property and most of the southern, river-front quadrants of the Property.

St. Johns Lumber Company was engaged in lumber sorting, sawing, planing, storing and shipping. Most of the operations were located beyond the western boundary of the Property on the adjacent land now owned by the City of Portland. Those adjacent facilities included the saw mill itself and most of the related facilities, as discussed in Part III of the response to Request 8. The portions of this operation on the Property consisted mostly of lumber storage areas, although a planing mill and related machine shop was located on the southwest quadrant of the Property. No dip tanks or wood preservative storage areas were identified in the portions of the mill operation located on the Property. It appears that the saw mill facilities were fueled by sawdust.

In September 1925, St. Johns Lumber Company sold various lots in the southeast and southwest quadrants of the Property to Beaver-Linnton Mills Corporation. In November 1928, St. Johns Lumber Company re-acquired those lots from Beaver-Linnton Mills Corporation. In April 1929, St. Johns Lumber Company sold those same lots to L B Menefee Lumber Company. In May 1930, St. Johns Lumber Company granted a quitclaim deed to L B Menefee Lumber Company's successor in title, Portland Spruce Mills, Inc., for the vacated portions of Leavitt and John Avenues on the Property.

*Beaver-Linnton Mills Corporation*

See above regarding transactions involving St. Johns Lumber Company.

*L B Menefee Lumber Company*

See above regarding transactions involving St. Johns Lumber Company.

*Portland Spruce Mills, Inc.*

See above regarding transactions involving St. Johns Lumber Company.

*Nedra Company*

Nedra Company owned most of the southeast quadrant of the Property adjacent to the Willamette River in the years prior to 1926. Operations on that portion of the Property prior to 1926 included a small lumber mill, wagon shed, horse barn and dock. In August 1925, Nedra Company sold a portion of this land to the Star Sand Company. In April 1926, Nedra Company sold the remaining portions of this land to Portland Manufacturing Company.

*Star Sand Company*

Star Sand Company owned and operated on portions of the Property from 1925 until 1955. In August 1925, Star Sand Company acquired portions of the southeast quadrant of the Property along the shoreline of the Willamette River from Nedra Company. Star Sand Company's operations included sand and gravel loading and storage. Sand and gravel were stored on land adjacent to the Willamette River and on a dock that extended over the Willamette River. Star Sand Company owned this land until July 1955 when it sold it to Portland Manufacturing Company.

*Portland Manufacturing Company*

For nearly forty years from the mid 1920s through 1964, Portland Manufacturing Company owned and operated on various portions of the Property.

In April 1926, Portland Manufacturing Company acquired portions of the southeast quadrant of the Property adjacent to N. Richmond Avenue from Nedra Company. At that time, Portland Manufacturing Company's own wood milling, storage and processing plant was located to the East across N. Richmond Avenue, just upstream of the Property. In July 1926, Portland Manufacturing Company sold portions of the southeast quadrant of the Property to Western Wool Warehouse Company in exchange for certain other land on the Property. In September 1930, Portland Manufacturing Company sold additional portions of this quadrant to Portland Wood Products Company, before re-acquiring this same land in August 1931.

During the mid and late 1920s, American Marine Iron Works was operating in buildings in the southeast quadrant of the Property owned by Portland Manufacturing Company, presumably pursuant to a lease. American Marine Iron Works' operations included a foundry and machine shop and an area for storing coke, which likely served as fuel for the foundry. This operation was directly across N. Richmond Avenue from Portland Manufacturing Company's own plywood manufacturing facility east of the Property.

During the early 1930s, Portland Manufacturing Company expanded its plywood operation across N. Richmond Avenue, taking over and expanding the facilities previously occupied by American Marine Iron Works. During that time, Portland Manufacturing Company reportedly entered into certain agreements with other plywood companies, including a joint venture with Tacoma Veneer, which was dubbed Oregon-Washington Plywood Co. In October 1930, Portland Manufacturing Company conveyed its facilities on the Property to Oregon-Washington Plywood Company. Portland Manufacturing Company, however, continued to own the land on which the plant was located and leased that land to Oregon-Washington Plywood Company by a lease dated the same day as the plant sale. This venture, however, was reportedly short-lived and, in August 1931, Portland Manufacturing Company re-acquired the plant.

In about 1931, Portland Manufacturing Company or related entities reportedly negotiated an agreement with M & M Wood Working Company and its affiliate Plylock Corporation. Under that agreement, Plylock Corporation agreed to operate Portland



Manufacturing Company's plywood mill located across N. Richmond Avenue, just east of the Property. Plylock Corporation also took over operations at the structures on Portland Manufacturing Company's land in the southeast quadrant of the Property previously used by American Marine Iron Works. Plylock Corporation's operations on the Property included at least three plywood storage warehouses, which served the plywood mill just east of the Property. Plylock Corporation operated on these portions of the Property until the early 1960s.

During the mid 1950s, Portland Manufacturing Company acquired additional lots throughout the Property. In July 1955, Portland Manufacturing Company acquired additional portions of the southeast quadrant of the Property from Star Sand Company. In April 1956, Portland Manufacturing Company acquired additional lots in the southeast quadrant from Portland Woolen Mills, Inc. In August 1958, Portland Manufacturing Company acquired portions of the northeast quadrant of the Property from three individuals (Ray R. Wilkes, Overton A. Haney and Anna L. Weeks, as partners) doing business as St. Johns Fuel Company. Also in August 1958, Portland Manufacturing Company acquired additional portions of the northeast quadrant of the Property from Louis F. Larsen and Karen M. Larsen.

In September 1964, Portland Manufacturing Company conveyed its ownership interests in the Property to Portland Lumber Mills, Inc. It appears, however, that it continued to operate on other portions of the Property at least into the early 1970s.

*Oregon-Washington Plywood Company*

See above regarding transactions involving Portland Manufacturing Company.

*Western Wool Warehouse Company*

Western Wool Warehouse Company owned portions of the southeast quadrant of Property from at least as early as the mid 1920s until 1934. In July 1926, Western Wool Warehouse Company exchanged small portions of the southeast quadrant with Portland Manufacturing Company. By the mid 1920s, Western Wool Warehouse Company was operating in a 20,000 square-foot storage wool warehouse in the southeast quadrant. In March 1934, Western Wool Warehouse Company's lender foreclosed on its interest in the Property.

*Peninsula Properties Inc.*

Peninsula Properties Inc. owned portions of the northeast quadrant of Property from 1928 until 1939. In June 1928, Peninsula Properties acquired title to certain lots in the northeast quadrant from J. N. Edlefsen and Maude E. Edlefsen. In May 1939, Peninsula Properties sold these portions of the Property to Russell Walker.

*Portland Wood Products Company*

Portland Wood Products Company owned portions of the Property for less than a year in the early 1930s. In September 1930, Portland Wood Products Company acquired certain portions of the Property from Portland Manufacturing Company. Commencing in February 1931, Portland Wood Products Company, together with the Portland Manufacturing Company, leased the plywood plant on the Property to Oregon-Washington Plywood Company. In August 1931, Portland Wood Products Company sold its portions of the Property to Portland Manufacturing Company.

*Portland Lumber Mills, Inc.*

From the mid-1930s until about 1966, Portland Lumber Mills, Inc. owned and operated the former lumber mill that extended onto the southern portions of the Property. For part of that time, Portland Lumber Mills, Inc.'s operation extended into three of the four quadrants.

In January 1934, Portland Lumber Mills, Inc. acquired various lots on the southern portion of the Property from Warren E. Thomas and certain additional lots in the southern portion of the Property from Mary J. Smith. In August 1964, Portland Lumber Mills, Inc. acquired numerous other lots throughout the Property from Portland Manufacturing Company. Following that August 1964 transaction, Portland Lumber Mills, Inc. owned the majority of the Property, including most of the lots in every quadrant except the northwest quadrant.

Portland Lumber Mills, Inc.'s operation was centered on the land west of the Property now owned by the City of Portland. By the 1930s, Portland Lumber Mills, Inc. was using a substantial portion of the Property for lumber storage in addition to the planing mill and related facilities in the southwest quadrant. In about 1958, Portland Lumber Mills, Inc. constructed a 40,000 square-foot lumber storage building that nearly covered the western half of the northeast quadrant.

By about 1966, Brand S Corporation owned and operated the lumber mill and land previously owned by Portland Lumber Mills, Inc.

*The Skookum Company*

The Skookum Company owned portions of the northwest quadrant of the Property from March 1935 until February 1977.

In March 1935, The Skookum Company acquired certain lots in the northwest quadrant. In November 1944 and April 1947, The Skookum Company acquired additional lots in that quadrant from Multnomah County. In October 1951, The Skookum Company acquired the remaining northwest quadrant lots from William A. Deming and Charlotte Deming. In November 1962, The Skookum Company conveyed its interests in certain vacated portions of St. John Avenue at the eastern edge of the northwest quadrant of the Property to the Portland Manufacturing Company. In 1974, The Skookum Company

granted an easement over a strip of land in the northwest quadrant of the Property to Portland General Electric Company.

A map from 1924 indicates that The Skookum Company was operating in certain buildings in the northwest quadrant of the Property previously occupied by Portland Collapsible Box Company. The Skookum Company was engaged in the business of manufacturing chains, wire rope and other logging equipment. In 1971, The Skookum Company leased certain portions of the northwest quadrant of the Property to Columbia Forge & Machine Works Inc.

*Portland Woolen Mills, Inc.*

From the mid 1930s to 1956, Portland Woolen Mills, Inc. owned certain portions of the southwest quadrant of the Property. From May 1935 through January 1936, Portland Woolen Mills, Inc. also acquired portions of the southeast quadrant, including the 20,000 square-foot wool warehouse, which it used to store raw wool. In May and June 1935, Portland Woolen Mills, Inc. leased certain space in the warehouse to Lawrence Warehouse Company. In May 1936 and August 1942, Portland Woolen Mills, Inc. leased additional space in the warehouse to Lawrence Warehouse Company. In May 1956, Portland Woolen Mills, Inc. conveyed these interests to Portland Manufacturing Company.

*Multnomah County*

Throughout the 1940s, Multnomah County acquired and sold various lots throughout the Property. In June 1941, Multnomah County acquired title to certain lots in the northern quadrants. In February and August 1944, the County acquired several additional lots in the northwest quadrant through quitclaim deeds. By March 1950, the County had sold those lots to adjacent landowners.

*St. Johns Fuel Company; and Ray R. Wilkes, Overton A. Haney and Anna L. Weeks dba St. Johns Fuel Co.*

In November 1957, three individuals (R. Ray Wilkes, Overton A Haney and Anna L. Weeks, as partners) doing business as St. Johns Fuel Company acquired certain lots in the northeast quadrant of the Property from Robert F. and Gladys H. Love. In August 1958, they sold their interest in these lots to Portland Manufacturing Company.

*Brand S Corporation/Brand S Lumber Mills, Inc./Brand S Lumber Co.*

In about 1966, Brand S Corporation acquired Portland Lumber Mills, Inc.'s operations, including the lumber mill that extended onto the southern portions of the Property as well as the land constituting the majority of the southwest, southeast and northeast quadrants of the Property. It is unclear if this acquisition was through a merger, since Crawford has identified no recorded transfer of title from Portland Lumber Mills, Inc. to Brand S Corporation. In February 1973, Brand S Corporation acquired portions of two additional

lots in the northeast quadrant from Marian Spratlen. In March 1975, Brand S. Corporation granted a distribution line easement to Portland General Electric Company.

Brand S Corporation continued to operate the lumber mill that extended onto the southern portions of the Property until about 1977. During that period from the mid-1960s to the late 1970s, various other companies also engaged in operations on parcels owned by Brand S Corporation. Those other operators included Portland Manufacturing Company, Fibron Corporation, Oregon Woodwork, and Western Homes, Inc. (later known as Brand S Homes, Inc.). These other operations included plywood mill operations, fiberglass distribution operations and woodworking facilities, as described in the response to Request 11(a)-(c).

In August 1977, Brand S Corporation conveyed its ownership interest at the Property to its affiliate, Brand S Lumber Mills, Inc., a Montana corporation. It appears that Brand S Lumber Mills, Inc. subsequently changed its name to Brand S Lumber Co. sometime between August 1977 and February 1979.

In February 1979, the City of Portland acquired these portions of the Property and adjacent river-front land from Brand S Lumber Co. Apparently in connection with acquisition, the mill buildings were demolished and black sand was imported as fill material at that time, as discussed in Part II to the response to Request 8.

#### *Fibron Corporation*

During the 1970s and early 1980s, Fibron Corporation operated in certain of the buildings in the southeast quadrant of the Property formerly occupied by Plylock Corporation. Fibron Corporation was engaged in the business of fiberglass insulation distribution. At that time, this land was owned by Brand S Corporation/Brand S Lumber Co. until 1979 and later by the City of Portland. In February 1979, Fibron Corporation granted a release and quitclaim deed to the City of Portland for that same land in exchange for \$1 consideration. Photographs indicate that Fibron Corporation's building had been removed from the Property by the mid 1980s during the City's period of ownership.

#### *Manufacturing Management, Inc.*

Manufacturing Management, Inc. owned portions of the Property for four months during 1988. In January 1988, Manufacturing Management, Inc. acquired the majority of the northeast, southeast and southwest quadrants from the City of Portland. In March 1988, Manufacturing Management, Inc. conveyed those parcels to its subsidiary, Crawford. Manufacturing Management, Inc. did not itself engage in any operations on the Property.

#### *Steel Hammer Properties LLC*

Since 2006, Steel Hammer Properties LLC has owned the majority of the Property. In February 2006, Steel Hammer Properties, LLC purchased from Crawford the portions of the Property that Crawford acquired from the City of Portland. These portions acquired by Steel Hammer Properties, LLC include the majority of the two southern quadrants as

well as the northeast quadrant of the Property. This land constitutes approximately three-quarters of the total area of the Property. Since 2006, Steel Hammer Properties LLC has used, and continues to use, those portions of the Property as a structural and plate steel storage and staging yard. This yard is covered with imported gravel and asphalt pavement in certain areas.

10(d): Information Regarding Certain Entities

Responsive information regarding the entities identified in Request 10(d) is contained in the response to Request 10(a)-(c) above. After a reasonable search and diligent inquiry, Crawford has not identified any responsive information regarding any ownership interests in the Property by Portland Chain Manufacturing Co.

11. **Identify all prior operators of the Property, including lessors, you are aware of for each Property identified in response to Question 4 above. For each such operator, further identify if known and provide copies of documents you may have regarding:**
- a. **the dates of operation;**
  - b. **the nature of prior operations at the Property;**
  - c. **all evidence that they controlled access to the Property; and**
  - d. **all evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at or from the Property during the period that they were operating the Property.**
  - e. **any information or documentation you have regarding but not limited to the following entities:**
    - i. **American Marine Iron Work;**
    - ii. **Asset Recovery;**
    - iii. **Beaver-Linnton Mills;**
    - iv. **Central Lumber Co.;**
    - v. **Columbia Forge and Machine Works;**
    - vi. **Custom Metal Cutting, Inc.;**
    - vii. **Lampros Steel Inc.;**
    - viii. **L.B. Menefee Lumber Co.;**
    - ix. **Lawrence Warehouse Co.;**
    - x. **Marine Iron Works;**
    - xi. **Oregon Barrel Co.;**
    - xii. **Pacific Stove and Range Manufacturing Company;**
    - xiii. **Peninsula Iron Works;**
    - xiv. **Plylock Corporation;**
    - xv. **Portland Chain Manufacturing;**
    - xvi. **Portland Collapsible Box Company;**
    - xvii. **Portland General Electric;**
    - xviii. **Portland Railway, Light, & Power Co.;**
    - xix. **Portland Spruce Mills;**
    - xx. **Portland Steel Ship Building Co.;**
    - xxi. **Portland Woollen Mills;**
    - xxii. **Simpson Lumber;**
    - xxiii. **Skookum Logging Supply Company;**

- xxiv. Star Sand Company;
- xxv. TLS Steel Products Co.;
- xxvi. Western Homes, Inc.;
- xxvii. Western Wool Warehouse; and
- xxviii. Willamette Forge and Machine Works.

Specific Objections: Crawford objects to this request on the ground that the phrases "controlled access" and "released and threatened to be released" are vague and ambiguous in context. Crawford also objects to subpart "d" of this request as overbroad, unduly burdensome and not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e). Crawford will construe subpart "d" as seeking information regarding the listed entities' possessory interests in, and operations on, the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

11(a)-(d): Prior Operators and Lessors

In addition to the owners discussed above, the following entities have operated on or leased various portions of the Property. Responsive documents regarding the entities below are included in Crawford's accompanying document production.

*Central Lumber Company*

Central Lumber Company operated a small sawmill on the Property from an unknown date through about 1904. The mill was apparently closed in 1904, and this area was generally vacant by 1911.

*Portland Steel Ship Building Company*

A 1905 map depicts a building on the northwestern quadrant of the property adjacent to N. Richmond Avenue, designated as Portland Steel Ship Building Company.

*Pacific Stove and Range Manufacturing Company*

As of 1911, Pacific Stove and Range Manufacturing Company was operating in a building in the northwest quadrant of the Property. A 1924 map shows this same building as vacant.

*Portland Collapsible Box Company*

As of 1911, Portland Collapsible Box Company was operating in a building in the northwest quadrant of the Property.

*Simpson Lumber Co.*

Simpson Lumber Co. is included in a list of prior owners of land within the southeast quadrant of the Property in a 1988 site assessment report.

*American Marine Iron Works*

During the 1920s, American Marine Iron Works operated a foundry and machine shop in the southeast portion of the Property adjacent to N. Richmond Avenue. These operations included an area for storing coke.

*Marine Iron Works*

Marine Iron Works is included in a list of prior owners of land within the southeast quadrant of the Property in a 1988 site assessment report.

*Portland Chain Manufacturing Co.*

From October 1928 until at least October 1951, Portland Chain Manufacturing Co. leased two lots in the northwest quadrant of the Property as well a building on those lots from R. J. and Carrie E. Strasser. This building was located at the corner of N. Crawford Street and N. Burlington Avenue. From July 1939 until October 1951, Portland Chain Manufacturing subleased those same lots and buildings to Reconstruction Finance Corporation. Reconstruction Finance Corporation's operations on those lots during that period are described below.

*Reconstruction Finance Corporation*

From July 1939 until October 1951, Reconstruction Finance Corporation, an agency chartered by the United States Government, subleased two lots in the northwest quadrant of the Property from Portland Chain Manufacturing Company. During that period, Reconstruction Finance Corporation also subleased the buildings and improvements on those lots. In October 1951, Reconstruction Finance Corporation relinquished its leasehold interests.

*Lawrence Warehouse Company*

Lawrence Warehouse Company operated on the Property from at least as early as 1935 through the mid 1950s. Lawrence Warehouse Company leased certain buildings and warehouse rooms from Portland Woolen Mills, Inc. The last of these recorded leases was canceled on April 17, 1956.

*Western Homes, Inc./Brand S Corporation*

Western Homes, Inc., operated in the southeast quadrant of the Property in the late 1960s. It appears that this entity was an affiliate of Brand S Corporation, later changing its name to Brand S Homes.

*Oregon Woodwork Company*

During the early 1970s, Oregon Woodwork Company operated in the lumber storage warehouses and related facilities in the southeast quadrant of the Property previously occupied by Plylock Corporation. The buildings in this area were demolished starting in the early 1970s, with the last building removed sometime between 1980s and 1984.

*Columbia Forge & Machine Works, Inc. (Columbia Forge I)*

From 1971 to February 2002, Columbia Forge & Machine Works, Inc. ("Columbia Forge I"), operated a metal fabrication business in portions of the northwest quadrant of the Property. This entity was the first of two entities by the name Columbia Forge & Machine Works to operate at the Property, as described below.

In 1971, Columbia Forge I leased portions of the northwest quadrant of the Property from The Skookum Company. These facilities included portions of Building 1 and an adjacent yard. On June 1, 1985, Columbia Forge I leased additional space in Building 1 and later leased portions of Building 2/3.

Columbia Forge I used the first and second floors in the northern portion of Building 1 as clerical office space. Building 1 also housed a machine shop with several lathes and two compressed air hammer forges. Building 2/3 was used for shipping and receiving, storage, and cutting of steel products. Columbia Forge I also operated another hammer forge in the Central Yard between Buildings 1 and 2/3. This Central Yard also contained an enclosed oil storage hut and a roofed area that contained an upsetter forge, induction heater and equipment storage area. In its operations, Columbia Forge I used water-based cutting oils, lubricants, degreasers, non-halogenated petroleum naphtha solvents and degreasers, but no chlorinated solvents. All waste generated was sent off-site for disposal or recycling. Columbia Forge I operated as a conditionally exempt waste generator due to its use of a small volume of petroleum naphtha solvent. In 1997, the City of Portland Bureau of Environmental Services and DEQ concluded that storm water runoff from this area of the Property did not directly discharge to a waterway and that implementation of best management practices would be adequate to mitigate any storm water runoff.

In February 2002, Columbia Forge I sold its business and equipment to CFMW, LLC. Since then, Columbia Forge I has not engaged in any further operations at the Property.

*CFMW, LLC, dba Columbia Forge & Machine Works*

In January 2002, CFMW, LLC acquired the business and equipment of Columbia Forge I, including all its operations at the Property. At that time, CFMW, LLC signed a five-year lease for portions of the northwest quadrant, which has since been extended through January 2012. At all times since January 2002, CFMW, LLC has been doing business in the northwest quadrant of the Property as Columbia Forge & Machine Works.



*Energy Guard Corporation*

As of 1980, Energy Guard Corporation operated in the southeast quadrant of the Property in the area previously occupied by Plylock Corporation. The building occupied by Energy Guard Corporation remained on the Property into the early 1980s.

*Johnson Manufacturing Co.*

On June 23, 1983, Johnson Manufacturing Co. leased 33,000 square feet of storage in the northwest quadrant of the Property from Crawford for a period of two years.

*St. Johns Truck and Equipment Sales*

On March 26, 1987, St. Johns Truck and Equipment Sales leased 4,000 square feet of warehouse space in Building 1 in the northwest quadrant of the Property from Crawford under a month to month lease. The lease specifies that St. Johns Truck and Equipment Sales would store truck parts in this space.

*Lampros Steel, Inc./Milt Lampros, Inc.*

From about 1989 to March 2005, Lampros Steel, Inc. leased portions of the Property for the operation of its structural steel fabrication and distribution business. For most of that time, Lampros Steel, Inc.'s operations spanned every quadrant and most of the total area of the Property, including the entire northeast quadrant, southeast quadrant, southwest quadrant and portions of the northwest quadrant.

In about 1989, Lampros Steel, Inc. leased the northeast quadrant and most of the southeast and southwest parcels from Crawford. In about February 1991, Lampros Steel, Inc. conveyed its operations at the Property to another entity named Milt Lampros, Inc. On February 28, 1991, Lampros Steel, Inc.'s lease at the Property was terminated and a new lease was executed by Milt Lampros, Inc. It appears that Milt Lampros, Inc. then changed its name to Lampros Steel, Inc. On March 1, 1991, Lampros Steel, Inc. executed a new lease for a period of five years. On January 15, 1996, Lampros Steel, Inc. entered into a new three-year lease with Crawford for these parcels and improvements. This lease was then extended twice, through March 2005.

Lampros Steel, Inc.'s facilities at the Property included the 40,000 square foot former lumber storage building in the northeast quadrant as well as large outdoor storage areas. In the 40,000 square foot building, Lampros Steel, Inc. operated equipment including a boom saw and beam straightener, and stored various pieces of equipment and cut structural steel. Lampros Steel, Inc. used the two southern quadrants of the Property as a structural steel storage yard. Lampros Steel, Inc. also leased a storage yard adjacent to its fabrication building as well a building in the northwest quadrant at the corner of N. Crawford Street and N. Burlington Avenue.

In its operation, Lampros Steel, Inc. offloaded trucks and railcars, cut and bent steel to customer specifications, and reloaded trucks for delivery. Lampros Steel, Inc. used

hydraulic oil, motor oil, water-based cutting oil, and synthetic saw coolant in operations. Lampros Steel, Inc. generated waste including saw shavings, steel scrap, used motor oil, spent saw coolant. According to information that Lampros Steel, Inc. submitted to DEQ, the scrap was recycled, used motor oil was sent off-site, and synthetic saw coolant was reused or recycled on-site. As of 1999, Lampros Steel, Inc. was using one 1,000-gallon above-ground diesel tank, located about 500 feet from the Willamette River. It does not appear that Lampros Steel, Inc. was registered with DEQ as a hazardous waste generator.

*TLS Steel Products, Inc.*

From 1989 to 2000, TLS Steel Products, Inc. operated a steel forging and fabrication business on the Property in the northwest quadrant of the Property. TLS Steel Products, Inc. operated in the northwest portion of Building 2/3. TLS Steel Products, Inc.'s operations included light metal heating, shaping, punching, cutting and bending using a small natural gas fired furnace. Substances used in TLS Steel Products, Inc.'s operation included hydraulic oil. As of 1990, TLS Steel Products, Inc. indicated that it had no chemical or waste storage or disposal areas on the Property.

*Acme Trading & Supply Company*

From the late 1980s to about 1991, Acme Trading & Supply Co. used office space in the office building at 8504 N. Crawford Street.

*Asset Recovery, Inc.*

From the late 1980s to about 1991, Asset Recovery, Inc. used office space in Lampros Steel Office Building at the corner of N. Crawford Street and N. Burlington Avenue.

*Custom Metal Cutting*

From about 1990 until 2000, Custom Metal Cutting used space in the Lampros Steel Office Building at 8524 N. Crawford Street in the northwest quadrant of the Property.

11(e): Information Regarding Certain Entities

Responsive information regarding the entities listed in Request 10(d) is contained in the responses to Request 10(a)-(c) and/or Request 11(a)-(c) above. After a reasonable search and diligent inquiry, Crawford has not identified any responsive information regarding any ownership interests in the Property by Peninsula Iron Works or Portland Railway, Light & Power Co. In February 2002, Columbia Forge I changed its name to Willamette Forge & Machine Works, Inc.

- 12. If not included in response to any of the previous questions, please describe the purpose and duration of each aquatic lands lease Respondent or the operator of Respondent's Property(ies) ever obtained from the State of Oregon and provide a copy of each application for and aquatic lands lease obtained.**

Specific Objections: Crawford objects to this request on the ground that the phrases "aquatic lands lease" are vague and ambiguous in context. Crawford also objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

13. **Provide the following information about each Property identified in response to Question 4:**
- a. **property boundaries, including a written legal description;**
  - b. **location of underground utilities (telephone, electrical, sewer, water main, etc.);**
  - c. **location of all underground pipelines whether or not owned, controlled or operated by you;**
  - d. **surface structures (e.g., buildings, tanks, pipelines, etc.);**
  - e. **over-water structures (e.g., piers, docks, cranes, etc.);**
  - f. **Dry wells;**
  - g. **treatment or control devices (e.g., surface water, air, groundwater, Resource Conservation and Recovery Act (RCRA), Transfer, Storage, or Disposal (TSD), etc.);**
  - h. **groundwater wells, including drilling logs;**
  - i. **storm water drainage system, and sanitary sewer system, past and present, including septic tank(s) and where, when and how such systems are emptied and maintained;**
  - j. **subsurface disposal field(s), Underground Injection Control (UIC) wells, and other underground structures (e.g., underground storage tanks (USTs); and where they are located, if they are still used, and how they were closed;**
  - k. **any and all major additions, demolitions or changes on, under or about the Property, its physical structures or to the Property itself (e.g., stormwater drainage, excavation work); and any planned additions, demolitions or other changes to the Property;**
  - l. **all maps and drawings of the Property in your possession; and**
  - m. **all aerial photographs of the Property in your possession.**
  - n. **all documentation regarding, but not limited to the following:**
    - i. **Any and all wells installed in 1988 by Sweet-Edwards/Emcon; and**
    - ii. **Any and all wells installed between 2000 and the present by the Bridgewater Group.**

Specific Objections: Crawford objects to this request on the ground that the phrases "dry wells," "treatment or control devises," "major additions, demolitions or changes" and "planned additions, demolitions or other changes to the Property."

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

13(a): Property Boundaries and Legal Description

The Property occupies Blocks 1 through 8 of the St. Johns Addition (approximately 15 acres) along the Willamette River in the St. Johns District of Portland, Oregon. It is situated in the southwest quarter of Section 15, Township 1 South, Range 1 West, and is bordered by the Willamette River to the South, N. Burlington and N. Richmond Avenues to the West and East, respectively, and by N. Crawford Street to the North. A Union Pacific Railroad Company railroad spur runs east/west through the center of the Property, dividing the Property into a southern and northern half.

13(b): Location of Underground Utilities

The City of Portland provides municipal water and sanitary sewer services to the Property through underground water and sewer lines owned and operated by the City. Water and sanitary sewer lines run beneath N. Crawford Street just north of the Property. An additional water line runs beneath the City-owned strip of land adjacent to the rail spur that bisects the Property.

13(c): Location of Underground Pipelines

Union Pacific Railroad Company owns and formerly operated an underground 8-inch diameter diesel pipeline adjacent to the Property. This diesel pipeline runs along the Property from the intersection of the rail spur and N. Richmond Avenue to N. Crawford Street, where it turns to follow N. Crawford Street to the West/Southwest. From 1977 until at least 2001, Union Pacific Railroad Company used this pipeline to deliver fuel to a former locomotive fueling facility several miles west of the Property. Union Pacific Railroad Company diesel pipeline is discussed in greater detail in the response to Request 8 above. City of Portland underground stormwater drain lines also run beneath N. Crawford Street, N. Burlington Avenue and N. Richmond Avenue.

13(d): Surface Structures

The following surface structures are currently located on portions of the Property:

*Lampros Steel Storage/Fabrication Building*

A 40,000 square-foot steel building is located on land adjacent to N. Crawford Street in the northeast quadrant of the Property. This building and the land on which it sits are owned by Steel Hammer Properties, LLC. This building occupies almost the entire western half of the northeast quadrant, and is bounded by vacated portions of N. John Avenue on the West, N. Bradford Street on the South, and N. Charleston Street on the East. The building is open to the west, with a concrete floor that contains no floor drains. Until March 2005, Lampros Steel, Inc. used this building to house part of its structural steel fabrication operation. This building is currently vacant.

### *Building 1*

To the west of the former Lampros Steel building sits a 10,000 square-foot steel building designated as Building 1. Building 1 lies in the eastern portion of the northwest quadrant, with its shorter end abutting N. Crawford Street to the North. This building is currently designated with the street address of 8424 N. Crawford Street. CFMW, LLC currently occupies this structure. Offices are located on the ground and second floors at the north end of the building near N. Crawford Street. The center area of the building is a machine shop with several lathes and drills, and the south end houses two hammer forges fueled by natural gas. With the exception of a small area beneath the hammer forges, the floor is concrete with no drains.

### *Lampros Steel Storage Yard*

On the eastern edge of the northwest quadrant, between the Lampros Steel Building to the East and Building 1 to the West, is an unpaved, outdoor storage yard. Prior to 2005, Lampros Steel, Inc. used the southern portion of this yard for storage of structural steel. Columbia Forge I and CFMW, LLC also used a portion of this yard for storage.

### *Building 2/3*

To the west of Building 1 in the northwest quadrant lies two adjacent, connected concrete masonry and wood-frame buildings designated collectively as Building 2/3. This building is currently designated with the street addresses of 8514 N. Crawford Street. The total area of these structures is 20,000 square-feet. CFMW, LLC occupies Building 2/3, using it primarily for storage of metal equipment, parts and steel stock. Steel cutting is performed in the southeastern corner of building. The building houses two small parts washers and has a concrete floor and no drains. Prior lessees of Building 2/3 include TLS Steel Products, Inc.

### *Central Yard*

Between Building 1 and Building 2/3 lies an approximately 26,000 square-foot yard, sometimes referred to as the Central Yard, which is used by CFMW, LLC. The Central Yard is paved except for a portion in the southwest corner. Upsetter forges and induction heaters are located in covered areas long the eastern edge of the Central Yard, and a large drop forge is located in a covered area in the southern portion of the Central Yard. Welding operations are performed in a covered area in the southeastern portion of the Central Yard. All forging and general operation areas are covered. Steel materials to be forged are stored throughout the yard, including steel rod and pipe.

### *Central Yard Storage Building*

In the center of the Central Yard sits an approximately 10,000 square-foot building. CFMW, LLC, Inc. uses this building to store 55-gallon drums of lubricating oils and drums of used products awaiting removal. The floor of this building is concrete with no drains.

*Lampros Steel Office Building*

An office building is located on the southeast corner of N. Crawford Street and N. Burlington Avenue. This building is currently designated with the street address of 8524 N. Crawford Street. During the period of Crawford's ownership, Lampros Steel, Inc. used this building for clerical purposes.

In addition to the current buildings and structures, numerous other buildings were present on the Property in prior periods. These former buildings and structures include:

*Former Lumber Mill Buildings and Structures*

As described above, lumber mill storage facilities and related structures were previously located in the southwest quadrant. These buildings were expanded and reconfigured many times before all the structures were removed in the late 1970s, prior to the time that Crawford acquired an ownership interest in that quadrant.

*Former Wool Warehouse*

From the 1920s through the 1970s, a 20,000 square-foot wool warehouse occupied the western part of the southeast quadrant of the Property. This building was demolished in the 1970s, prior to the time that Crawford acquired an ownership interest in that quadrant.

*Former Plywood Mill Buildings and Structures*

As described above, plywood storage facilities and related structures were previously located in the southeast quadrant adjacent to N. Richmond Avenue. These buildings were expanded and reconfigured over time before the last of these structures was demolished in the early or mid 1980s, prior to the time that Crawford acquired an ownership interest in that quadrant.

13(e): Over-Water Structures

No over-water structures currently exist at the Property. Former over-water structures were removed by prior owners, as discussed above in the response to Request 11. These former over-water structures included:

*Former Mill Dock and Over-Water Facilities*

Aerial photos from the 1930s through the early 1970s depict a few small docks extended from the former mill buildings in the southwest quadrant over the Willamette River. These structures were removed from the Property during the 1970s, prior to the time that Crawford acquired any ownership interest in this quadrant.

### *Former Sand and Gravel Dock*

Between 1911 and 1924, a dock was constructed at the southern end of N. Richmond Avenue in the southeast quadrant of the Property, extending out over the Willamette River. The dock was used for loading and unloading of barges and the staging and storage of sand and gravel. This dock was removed sometime prior to the late 1950s, before Crawford acquired any ownership interest in this quadrant.

#### 13(f): Dry Wells

After a reasonable search and diligent inquiry, Crawford has not identified any information regarding any dry wells on the Property.

#### 13(g): Treatment or Control Devices

As discussed in response to subpart 13(i) below, Crawford installed a stormwater filter system in the Central Yard area of the northwest quadrant of the Property and constructed an asphalt berm on the northern border of the Property adjacent to N. Crawford Street to prevent stormwater from upgradient sources from entering the Property.

#### 13(h): Groundwater Wells

Prior environmental assessments at the Property have concluded that no drinking water, irrigation or supply wells are located within at least a half-mile radius of the Property. It appears that businesses and residences in the vicinity of the Property have been served by public water systems since the early 1900s. In 2001, Crawford's consultants took GeoProbe borings that were later converted to temporary monitoring wells. No groundwater monitoring wells are currently located on the Property.

#### 13(i): Stormwater, Sewer and Septic Systems

Prior assessments have concluded that the vast majority of stormwater on the Property infiltrates the soil and does not flow to the City's stormwater collection system or any other discharge point to the Willamette River. In 2004, DEQ concluded that groundwater is not a likely migration pathway for contaminants to the Willamette River. Nonetheless, set forth below is a summary of stormwater flow at the Property.

### *On-Site Stormwater Flow*

The southern quadrants of the Property are covered with imported gravel and asphalt pavement in certain areas. Storm water in these quadrants generally sheet flows to the unpaved areas where it infiltrates into the ground. During heavy rainfall, some stormwater in the southeast quadrant flows through a swale on the river bank and either infiltrates into the beach sand or flows over the sand into the Willamette River. In the southwest quadrant, some stormwater combines with runoff from the adjacent City of Portland Bureau of Environmental Services and flows into a low-lying area west of the

Property where it infiltrates into the ground. During high flow events, the ponded water in this low-lying area may flow overland to the City's stormwater retention ponds.

Stormwater from the Central Yard and the roofs of buildings in the northwest quadrant flows first through a stormwater filter system in a large planter installed by Crawford along a wall on the south side of the Central Yard. This system includes a vegetated sand/soil filter intended to capture petroleum hydrocarbons and metals. The filtered stormwater then flows south toward the City-owned strip of land, where it infiltrates the ground or joins the flow along the rail spur.

Stormwater also collects along the rail corridor, where it combines with stormwater from upgradient sources east of the Property and infiltrates the ground. During heavy rainfall, some of the stormwater at the rail corridor also sheetflows across the southwest quadrant to the low-lying area west of the Property where it infiltrates into the ground or continues to the City's stormwater detention ponds.

In 1997, the City of Portland Bureau of Environmental Services and DEQ collected a storm water sample from the western drain pipe outlet from the Central Yard area to determine whether operations in that area required an NPDES permit. The inspection concluded that runoff did not directly discharge to any waterway and that implementation of best management practices would be adequate to mitigate any storm water runoff.

#### *Former Off-Site Stormwater Flow Onto the Property*

Until 1999, the northern portions of the Property formerly also received stormwater from upgradient sources as described in Part III of the response to Request 8 above. In December 1999, Crawford constructed an asphalt berm along the northern edge of the Property adjacent to N. Crawford Street, to reduce the volume of storm water runoff coming onto the Property from those and other upgradient properties.

#### *The City of Portland's Conveyance of Stormwater*

Any stormwater run-off from the Property and adjacent areas that is collected in the City of Portland's catch basins is conveyed through City-owned and operated stormwater system to City Outfall 52, located near River Mile 6.0 on the west/northwest side of the St. Johns Bridge. Until 1997, the City discharged stormwater run-off from this area to City Outfall 50, which is located on the City-owned land immediately west of the Property. City Outfall 50 drained approximately 32 acres that included industrial, commercial and residential developments. During periods of heavy rainfall, the City's discharges from Outfall 50 also periodically included sewage from overflows of the City's combined stormwater/sewer system.

#### *Sewer and Septic Systems*

Information regarding the water and sewer system is contained in the response to Request 6(d). Information regarding a potential former septic system is contained in the response to Request 8.



13(j): Subsurface Disposal Field(s), Underground Injection Control (UIC) Wells, and Other Under-Ground Structures

Three underground storage tanks were formerly located in the northwest quadrant of the Property: a 1,000 gallon steel tank installed in the 1950s used to store gasoline; a 1,000 gallon steel tank installed in the late 1960s used to store Bunker C oil; and a 5,000 gallon tank containing diesel near the former Lampros Steel Office Building at the western edge of the Property. All of these tanks were removed in 1987. During a 1988 assessment, a diesel tank was identified and removed from the southeast quadrant.

13(k) Major Additions, Demolitions or Changes

Information regarding buildings and structures built, reconfigured, expanded and removed from various portions of the Property is contained in the responses to Requests 8, 13(d) and 13(e).

13(l): Maps and Drawings

Copies of maps and drawings responsive to this request are included in Crawford's accompanying document production.

13(m): Aerial Photographs

Copies of aerial photographs responsive to this request are included in Crawford's accompanying document production.

13(n)(i)-(ii): Documentation Regarding Wells

Copies of documents regarding groundwater monitoring wells installed during the various environmental assessments are included in Crawford's accompanying document production. After a reasonable search and diligent inquiry, Crawford has not identified any information regarding any permanent wells on the Property.

- 14. For Properties adjacent to the Willamette River, provide specific information describing the river-ward boundary of private ownership and where state aquatic lands and/or state-management jurisdiction begins. Provide a map that delineates the river-ward boundary of each Property.**

Specific Objections: Crawford objects to this request on the ground that the phrases "river-ward boundary of private ownership" and "state management jurisdiction" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Steel Hammer Properties, LLC owns the portions of the Property abutting the Willamette River to the ordinary line of low water. In March and April 1990, the City of Portland

and Crawford granted quitclaim deeds to the State of Oregon Division of State Lands, releasing all rights to certain submerged land lying below the line of ordinary low water along the river bank adjacent to the Property. In March 1990, State of Oregon Division of State Lands granted quitclaim deeds to the City of Portland and Crawford releasing all rights to certain land lying above the line of ordinary low water along the river bank adjacent to the Property. These deeds include maps delineating the river-ward boundary, which are included in Crawford's accompanying document production.

- 15. For each Property, provide all reports, information or data you have related to soil, water (ground and surface), or air quality and geology/hydrogeology at and about each Property. Provide copies of all documents containing such data and information, including both past and current aerial photographs as well as documents containing analysis or interpretation of such data.**

Specific Objections: Crawford objects to this request on the ground that the phrase "related to soil, water (ground and surface), or air quality and geology/hydrology" is vague and ambiguous in context. Crawford also objects to this request on the ground that it is overbroad and unduly burdensome. Crawford will construe this request as seeking copies of technical reports and sampling data that describe the content, constituents or characteristics of any soil, groundwater, surface water or air quality at the Property, as well as any technical reports, data or boring or drilling logs that describe the geology or hydrogeology at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Copies of documents responsive to this request are included in Crawford's accompanying document production.

- 16. Identify all past and present solid waste management units or areas where materials are or were in the past managed, treated, or disposed (e.g., waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) on each Property. For each such unit or area, provide the following information:**
- a. a map showing the unit/area's boundaries and the location of all known units/areas whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units/areas;**
  - b. dated aerial photograph of the Property showing each unit/area;**
  - c. the type of unit/area (e.g., storage area, landfill, waste pile, etc.), and the dimensions of the unit/area;**
  - d. the dates that the unit/area was in use;**
  - e. the purpose and past usage (e.g., storage, spill containment, etc.);**
  - f. the quantity and types of materials (hazardous substances and any other chemicals) located in each unit/area, and;**

- g. the construction (materials, composition), volume, size, dates of cleaning, and condition of each unit/area.**
- h. documentation regarding but not limited to the following:**
  - i. any black sand fill that was deposited at the Property; and**
  - ii. any piles of asphalt and metal debris.**

Specific Objections: Crawford objects to this request on the ground that the phrases "areas where materials are or were in the past managed, treated, or disposed," "purpose and past usage," and "construction (materials, composition), volume, size, dates of cleaning and condition" are vague and ambiguous in context. Crawford further objects to this request as overbroad and unduly burdensome. Crawford will construe this request as seeking information regarding any areas of the Property used for disposal of any "solid waste" as defined at 42 U.S.C. Section 6903(27).

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

16(a)-(g): Solid Waste Management Units

After a reasonable search and diligent inquiry, Crawford has not identified any solid waste management unit at the Property.

16(h): Documentation Regarding Specific Areas

*16(h)(i): Black Sand Fill*

Copies of documents regarding the black sand fill are included in Crawford's accompanying document production.

*16(h)(ii): Piles of Asphalt and Metal Debris*

Copies of documents regarding the asphalt pile on the adjacent land west of the Property and small debris pile from the demolition of the mill buildings are included in Crawford's accompanying document production.

- 17. If the unit/area described above is no longer in use, how was such unit/area closed and what actions were taken to prevent or address potential or actual releases of waste constituents from the unit/area. Provide documentation regarding, but not limited to the excavation of the black sand from the Property in 2002.**

Specific Objections: Crawford objects to this request on the ground that the phrases "unit/area described above" is vague and ambiguous in context. Crawford will construe this request as seeking information regarding any areas of the Property used for disposal of any "solid waste" as defined at 42 U.S.C. Section 6903(27).

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any solid waste management unit at the Property. Information regarding Crawford's efforts to address the black sand imported to the Property during the late 1970s around the time that the City of Portland acquired those portions of the Property is contained in the responses to Requests 8 and 64, and copies of relevant documents are also included in Crawford's accompanying document production.

- 18. For each Property, provide the following information regarding any current or former sewer or storm sewer lines or combined sanitary/storm sewer lines, drains, ditches, or tributaries discharging into the Willamette River:**
- a. the location and nature of each sewer line, drain, ditch, or tributary;**
  - b. the date of construction of each sewer line, drain, ditch, or tributary;**
  - c. whether each sewer line, or drain was ever connected to a main trunk line;**
  - d. whether each sewer line, drain, ditch, or tributary drained any hazardous substance, waste, material or other process residue to the Willamette River.**
  - e. documentation regarding but not limited to the following:**
    - i. any and all outfalls to the Willamette River which are located within the boundaries of the Property(ies). Your response should include, but not be limited to:**
    - ii. the areas serviced by the outfalls,**
    - iii. the type of outfall (i.e., storm water or single facility operational).**

Specific Objections: Crawford objects to this request on the ground that the phrases "nature of each sewer line, drain, ditch, or tributary," "hazardous substance, water, material or other process residue" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

18(a)-(d): Sewer or Storm Sewer Lines or Combined Sanitary/Storm Sewer Lines, Drains, Ditches, or Tributaries Discharging into the Willamette River

Information responsive to this request is contained in the response to Request 13(i).

18(e)(i)-(iii): Documentation Regarding Outfalls to the Willamette River

Copies of documents responsive to this request are included in Crawford's accompanying document production.

- 19. Provide copies of any stormwater or property drainage studies, including data from sampling, conducted at these Properties on stormwater, sheet flow, or surface water runoff. Also provide copies of any Stormwater Pollution Prevention or Maintenance Plans or Spill Plans developed for different operations during the Respondent's operation of each Property. Provide documentation, regarding the 200-ft. berm constructed control runoff. Please identify the following:**
- a. construction date;**
  - b. purpose of construction; and**

- c. all maps and figures detailing the exact location of the berm.**

Response: Subject to and without waiver of any of the General and specific objections or Specific Objections stated above, Crawford responds as follows:

Copies of documents responsive to this request are included in Crawford's accompanying document production.

19(a)-(c): Information Regarding the Asphalt Berm

Responsive information regarding the asphalt berm is contained in the responses to Requests 8 and 13(i).

- 20. Describe the nature of your operations or business activities at each Property. If the operation or business activity changed over time, please identify each separate operation or activity, the dates when each operation or activity was started and, if applicable, ceased.**

Specific Objections: Crawford objects to this request on the ground that the phrases "operations or business activity" and "each separate operation or activity" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property. During its period of ownership, Crawford has leased portions of the Property to entities including Columbia Forge I; CFMW, LLC; Johnson Manufacturing Co.; and Lampros Steel, Inc. The leasehold interests and operations of these lessees are discussed in the response to Request 11 above.

- 21. At each Property, did you ever use, purchase, generate, store, treat, dispose, or otherwise handle any waste, or material? If the answer to the preceding question is anything but an unqualified "no," identify:**
- a. in general terms, the nature and quantity of the waste or material so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled;**
  - b. the chemical composition, characteristics, physical state (e.g., solid, liquid) of each waste or material so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled;**
  - c. how each such waste or material was used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you;**
  - d. the quantity of each such waste or material used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you; and**
  - e. identify and describe your use, purchase, generation, treatment, or disposal of the following;**
    - i. any black sand deposited at the Property(ies) for use as fill.**

- ii. any petroleum products including but not limited to the following;
  - 1. gasoline;
  - 2. diesel;
  - 3. polychlorinated biphenyl(s) (PCB) contaminated oil;
  - 4. hydraulic oil;
  - 5. cutting oil; and
  - 6. waste oil.

Specific Objections: Crawford objects to this request on the ground that the phrase "waste or material" is vague and ambiguous in context and on the ground that the request, as drafted, is overbroad and unduly burdensome.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

21(a)-(e): Use of Materials

Crawford has not engaged in any operations at the Property. Crawford's consultants have performed certain assessments and removed approximately 381 tons of the black sand deposited at the Property by other parties, as discussed in responses to Requests 8 and 64.

22. **Describe all activities at each Property that was conducted over, on, or adjacent to, the Willamette River. Include in your description whether the activity involved hazardous substances, waste, or materials and whether any such hazardous substances, waste, or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located in the Willamette River.**

Specific Objections: Crawford objects to this request on the ground that the phrases "adjacent to," "involved hazardous substances, water or materials," and "came to be located" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

During the period that Crawford owned portions of the southern quadrants of the Property from 1988 to 2006, those quadrants were used by Lampros Steel, Inc. for storing steel beams and plates. No operations occurred on the beach directly adjacent to the Willamette River, and no docks, piers or other over-water structures existed at the Property during that period. Information regarding prior operations and materials usage in those quadrants is contained in the responses to Requests 8, 10 and 11 above.

23. **For each Property at which there was or is a mooring facility, dock, wharf or any over-water structure, provide a summary of over-water activities conducted at the structure, including but not limited to, any material loading and unloading operations associated with vessels, materials handling and storage practices, ship berthing and anchoring, ship fueling, and ship building, retrofitting, maintenance, and repair.**

Specific Objections: Crawford objects to this request on the ground that the phrases "summary of over-water activities," "involved hazardous substances, waste or materials," and "came to be located" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information regarding any shipbuilding, retrofitting, maintenance, repair or fueling at the Property. Information regarding historical mill docks and loading of sand and gravel at the former Star Sand dock are described in the responses to Requests 8, 10 and 11.

- 24. Describe all activities conducted on leased aquatic lands at each Property. Include in your description whether the activity involved hazardous substances, waste, or materials and whether any such hazardous substances, waste, or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located on such leased aquatic lands.**

Specific Objections: Crawford objects to this request on the ground that the phrases "involved hazardous substances, waste or materials" and "came to be located" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

- 25. Please describe the years of use, purpose, quantity, and duration of any application of pesticides or herbicides on each Property during the period of investigation (1937 to the present). Provide the brand name of all pesticides or herbicides used.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information regarding any pesticides or herbicides used at the Property. As noted above in the response to Request 6(d), Portland General Electric Company acquired utility easements over portions on the Property in 1974 and 1975 that included the right to use "chemical sprays." In addition, as noted in response to Request 10, a drum of Silvex (an herbicide) was found in the 40,000 square foot building in the northeast quadrant when the City of Portland vacated that building in 1988. Crawford has not identified any additional information, however, as to whether the City of Portland or any other party applied herbicides or pesticides at the Property.

- 26. Describe how wastes transported off the Property for disposal are and ever were handled, stored, and/or treated prior to transport to the disposal facility.**

Specific Objections: Crawford objects to this request on the ground that the phrase "handled, stored and/or treated" is vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Responsive information regarding the removal of black sand from the Property is contained in the responses to Requests 8 and 64. Information regarding the off-site disposal of waste generated by other parties is included in the responses to Requests 10 and 11.

- 27. Has Respondent ever arranged for disposal or treatment or arranged for transportation for disposal or treatment of materials to any Property (including the Willamette River) within the Investigation Area? If so, please identify every Property that Respondent's materials were disposed or treated at in the Investigation Area. In addition, identify:**
- a. the persons with whom the Respondent made such arrangements;**
  - b. every date on which Respondent made such arrangements;**
  - c. the nature, including the chemical content, characteristics, physical state (e.g., solid, liquid) and quantity (volume and weight) of all materials involved in each such arrangement;**
  - d. in general terms, the nature and quantity of the non-hazardous materials involved in each such arrangement;**
  - e. in general terms, the nature and quantity of any hazardous materials involved in each such arrangement;**
  - f. the owner of the materials involved in each such arrangement, if not Respondent;**
  - g. all tests, analyses, analytical results or manifests concerning each hazardous material involved in such transactions;**
  - h. the address(es) for each Property, precise locations at which each material involved in such transactions actually was disposed or treated;**
  - i. the owner or operator of each facility at which hazardous or non-hazardous materials were arranged to be disposed at within the Investigation Area;**
  - j. who selected the location to which the materials were to be disposed or treated;**
  - k. who selected the Property as the location at which hazardous materials were to be disposed or treated; and**
  - l. any records of such arrangement and each shipment.**

Specific Objections: Crawford objects to this request on the ground that the term "materials" is vague and ambiguous in context.



Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has never arranged for disposal or treatment or arranged for transportation for disposal or treatment of materials to any property within the Investigation Area.

- 28. Describe the plants and other buildings or structures where Respondent carried out its operations at each Property within the Investigation Area (excluding locations where ONLY clerical/office work was performed).**

Specific Objections: Crawford objects to this request on the ground that the phrase "carried out its operations" is vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

- 29. Provide a schematic diagram or flow chart that fully describes and/or illustrates the Respondent's operations on each Property.**

Specific Objections: Crawford objects to this request on the ground that the phrase "fully describes and/or illustrates the Respondent's operations" is vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

- 30. Provide a brief description of the nature of Respondent's operations at each location on each Property including:**

- a. the date such operations commenced and concluded; and**
- b. the types of work performed at each location, including but not limited to the industrial, chemical, or institutional processes undertaken at each location.**

Specific Objections: Crawford objects to this request on the ground that the phrases "brief description of the nature of Respondent's operations" and "each location on the Property" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

31. **If the nature or size of Respondent's operations changed over time, describe those changes and the dates they occurred.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding any changes in any operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

32. **List the types of raw materials used in Respondent's operations, the products manufactured, recycled, recovered, treated, or otherwise processed in these operations.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

33. **Provide copies of Material Safety Data Sheets (MSDS) for materials used in the Respondent's operations.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

34. **Describe the cleaning and maintenance of the equipment and machinery involved in these operations, including but not limited to:**
- a. **the types of materials used to clean/maintain this equipment/machinery;**
  - b. **the monthly or annual quantity of each such material used;**
  - c. **the types of materials spilled in Respondent's operations;**
  - d. **the materials used to clean up those spills;**

- e. **the methods used to clean up those spills; and**
- f. **where the materials used to clean up those spills were disposed of.**

Specific Objections: Crawford objects to this request on the ground that the phrase "cleaning and maintenance" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

**35. Describe the methods used to clean up spills of liquid or solid materials during Respondent's operation.**

Specific Objections: Crawford objects to this request on the ground that the phrase "methods used to clean up spills" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to and without waiver of any of the General and specific objections or Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

**36. For each type of waste (including by-products) from Respondent's operations, including but not limited to all liquids, sludges, and solids, provide the following information:**

- a. **its physical state;**
- b. **its nature and chemical composition;**
- c. **its color;**
- d. **its odor;**
- e. **the approximate monthly and annual volumes of each type of waste (using such measurements as gallons, cubic yards, pounds, etc.); and**
- f. **the dates (beginning ending) during which each type of waste was produced by Respondent's operations;**
- g. **documentation regarding the following:**
  - i. **any black sand deposited at the Property(ies) for use as fill.**
  - ii. **any petroleum products including but not limited to the following:**
    - 1. **gasoline;**
    - 2. **diesel;**
    - 3. **PCB contaminated oil;**

4. hydraulic oil;
5. cutting oil; and
6. waste oil.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property. Information regarding the black sand deposited at the Property in the late 1970s around the time that the City of Portland acquired this land is contained in the responses to Requests 8 and 64.

37. **Provide a schematic diagram that indicates which part of Respondent's operations generated each type of waste, including but not limited to wastes generated by cleaning and maintenance of equipment and machinery and wastes resulting from spills of liquid materials.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

38. **Identify all individuals who currently have and those who have had responsibility for Respondent's environmental matters (e.g., responsibility for the disposal, treatment, storage, recycling, or sale of Respondent's wastes). Also provide each individual's job title, duties, dates performing those duties, supervisors for those duties, current position or the date of the individual's resignation, and the nature of the information possessed by such individuals concerning Respondent's waste management.**

Specific Objections: Crawford objects to this request on the ground that the phrase "responsibility for Respondent's environmental matters" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property. As discussed in the responses to Requests 8, 64 and 71, Crawford previously retained consultants to perform environmental assessments and removal work at the Property.

**39. For each type of waste describe Respondent's contracts, agreements, or other arrangements for its disposal, treatment, or recycling.**

Specific Objections: Crawford objects to this request on the ground that the phrase "describe Respondent's contracts, agreements or other arrangements" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

**40. Provide copies of such contracts and other documents reflecting such agreements or arrangements.**

- a. State where Respondent sent each type of its waste for disposal, treatment, or recycling.
- b. Identify all entities and individuals who picked up waste from Respondent or who otherwise transported the waste away from Respondent's operations (these companies and individuals shall be called "Waste Carriers" for purposes of this Information Request).
- c. If Respondent transported any of its wastes away from its operations, please so indicate.
- d. For each type of waste specify which Waste Carrier picked it up.
- e. Indicate the ultimate disposal/recycling/treatment location for each type of waste.
- f. Provide all documents indicating the ultimate disposal/recycling/treatment location for each type of waste.
- g. State the basis for and provide any documents supporting the answer to the previous question.

Specific Objections: Crawford objects to this request on the ground that the phrase "reflecting such agreements or arrangements" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

**41. Describe all wastes disposed by Respondent into Respondent's drains including but not limited to:**

- a. the nature and chemical composition of each type of waste;**
- b. the dates on which those wastes were disposed;**
- c. the approximate quantity of those wastes disposed by month and year;**
- d. the location to which these wastes drained (e.g. septic system or storage tank at the Property, pre-treatment plant, Publicly Owned Treatment Works (POTW), etc.); and**
- e. whether and what pretreatment was provided.**

Specific Objections: Crawford objects to this request on the ground that the phrases "Respondent's drains" and "pretreatment" are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

**42. Identify any sewage authority or treatment works to which Respondent's waste was sent.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

**43. Describe all settling tank, septic system, or pretreatment system sludges or other treatment wastes resulting from Respondent's operations.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

- 44. If applicable, describe the facilities, processes and methods Respondent or Respondent's contractor used, and activities engaged in, either currently or in the past, related to ship building, retrofitting, maintenance or repair, including, but not limited to, dry-docking operations, tank cleaning, painting and re-powering.**

Specific Objections: Crawford objects to this request on the ground that the phrases "Respondent's contractors" and "related to ship building, retrofitting, maintenance or repair" are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

- 45. Describe any hazardous substances, wastes, or materials used or generated by the activities described in response to the previous Question and how these hazardous substances, materials and wastes were released or disposed of.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

- 46. Provide copies of any records you have in your possession, custody or control relative to the activities described in response to the previous two Questions.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations by Crawford at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property.

- 47. Describe any process or activity conducted on a Property identified in response to Question 4 involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of polychlorinated biphenyl(s) ("PCB(s)" or PCB(s)-containing materials or liquids. Specifically provide any and all documentation regarding the overheating of a transformer resulting in a release of PCB contaminated oil and the disposal of the transformer.**

Specific Objections: Crawford objects to this request on the ground that the phrases "involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of polychlorinated biphenyl(s) ("PCB(s)" or PCB(s)-containing materials or liquids" and "release of PCB contaminated oil" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Except as noted above in the response to Request 64, Crawford has no information regarding any release of PCBs into the soil, groundwater or surface water at the Property. A confined leak of PCBs occurred inside an enclosed cabinet in the northwest quadrant of the Property in 1987. The cabinet was removed from the Property for off-site disposal. No material was released to the soil, and subsequent environmental assessments concluded that there was no potential for any of this material to have reached the Willamette River. Documents regarding this event and the response actions are contained in Crawford's accompanying document production.

- 48. For each process or activity identified in response to the previous Question, describe the dates and duration of the activity or process and the quantity and type of PCB(s) or PCB(s) containing materials or liquids.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Responsive information is contained in the response to Requests 47 and 64. After a reasonable search and diligent inquiry, Crawford has not identified any further information responsive to this request.

- 49. For each process or activity identified in response to the previous two Questions, identify the location of the process or activity on the Property.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Responsive information is contained in the response to Request 47 above. After a reasonable search and diligent inquiry, Crawford has not identified any further information responsive to this request.



- 50. Identify all federal, state and local authorities that regulated the owner or operator of each Property and/or that interacted with the owner or operator of each Property. Your response is to address all interactions and in particular all contacts from agencies/departments that dealt with health and safety issues and environmental concerns Provide information concerning interactions with, but not limited to, the following:**
- a. United States Environmental Protection Agency (EPA);**
  - b. Oregon Department of Environmental Quality (ODEQ);**
  - c. United State Coast Guard (USCG); and**
  - d. United States Army Corps of Engineers (USACE).**

Specific Objections: Crawford objects to this as overbroad and unduly burdensome. Crawford further objects to this request on the ground that the phrases "address all interactions," "all contacts," "dealt with health and safety issues," "environmental concerns" and "information concerning interactions" are vague and ambiguous in context. Crawford further objects to this request to the extent it requires Crawford to document interactions with the EPA, since this information is already in EPA's possession or is equally available to EPA.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

50(a): Interactions with EPA

In April 2006, EPA contacted Crawford requesting that Crawford join in certain investigative efforts at the Portland Harbor Site. Since then, Crawford has participated in various meetings organized or attended by EPA attorneys and staff members.

50(b): Interactions with Oregon DEQ

From 1999 to 2001, Crawford and its consultants at Bridgewater Group, Inc. ("Bridgewater") communicated with employees of DEQ including Tom Gainer and Steve Fortuna regarding an Environmental Assessment of the Property summarized in the response to Request 71. In 2001 to 2002, Crawford and Bridgewater communicated with DEQ staff including Tom Gainer regarding soil and groundwater sampling and the black sand removal, as discussed in the responses to Requests 8 and 64. From 2007 to the present, Crawford and Bridgewater have communicated with Tom Gainer at DEQ regarding a Sampling and Analysis Plan for Preliminary Source Control Evaluation, as discussed in the response to Request 71. In April 2006, DEQ contacted Crawford requesting that Crawford join in investigative efforts at the Portland Harbor Site. Since then, Crawford has participated in various meetings organized or attended by DEQ attorneys and staff.

50(c): Interactions with the U.S. Coast Guard

The U.S. Coast Guard reportedly issued a warning to prior owners regarding the black sand deposited at the Property as discussed in the response to Request 8. In January

2001, Bridgewater submitted a Freedom of Information Act request to the U.S. Coast Guard seeking information regarding any such incidents in this vicinity during the relevant period. In February 2001, the U.S. Coast Guard responded that they did not have any files responsive to the request.

50(d): Interactions with the U.S. Army Corps of Engineers

In September 2001, Crawford's consultant Bridgewater applied to the U.S. Army Corps of Engineers for a permit in connection with the black sand removal. Bridgewater subsequently submitted to the Corps a Pollution and Erosion Control Plan on September 21, 2001. By letter dated October 17, 2001, the Corps provided authorization under Nationwide Permit No. 38.

- 51. Describe all occurrences associated with violations, citations, deficiencies, and/or accidents concerning each Property during the period being investigated related to health and safety issues and/or environmental concerns. Provide copies of all documents associated with each occurrence described.**

Specific Objections: Crawford objects to this request on the ground that the phrase "occurrences associated with violations, citations, deficiencies and/or accidents" is vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property. During the late 1970s, the U.S. Coast Guard reportedly issued a warning to prior owners regarding the black sand deposited at the Property as discussed in the response to Request 8.

- 52. Provide a list of all local, state and federal environmental permits ever issued to the owner or operator on each Property (e.g., RCRA permits, National Pollutant Discharge Elimination System (NPDES) permits, etc.). Please provide a copy of each federal and state permit, and the applications for each permit, ever issued to the owner or operator on each Property.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property. Information regarding other operators on the Property is contained in the response to Request 11.

- 53. Did the owner or operator ever file a Hazardous Waste Activity Notification under the RCRA? If so, provide a copy of such notification.**

Specific Objections: Crawford objects to this request on the ground that the phrase "the owner or operator" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

On April 5, 1989, Columbia Forge I filed a Notification of Hazardous Waste Activity. A copy of this document is included in Crawford's accompanying document production.

- 54. Did the owner or operator's facility on each Property ever have "interim status" under the RCRA? If so, and the facility does not currently have interim status; describe the circumstances under which the facility lost interim status.**

Specific Objections: Crawford objects to this request on the ground that the phrases "the owner or operator's" and "interim status under the RCRA" are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information regarding any RCRA interim status for any operation at the Property.

- 55. Provide all RCRA Identification Numbers issued to Respondent by EPA or a state for Respondent's operations.**

Specific Objections: Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations on the Property. Crawford does not possess a RCRA Identification Number.

- 56. Identify all federal offices to which Respondent has sent or filed hazardous substance or hazardous waste information, State the years during which such information was sent/filed.**

Specific Objections: Crawford objects to this request on the ground that the phrases "federal offices" and "sent or filed hazardous substances or hazardous waste information" are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

- 57. Identify all state offices to which Respondent has sent or filed hazardous substance or hazardous waste information. State the years during which such information was sent/filed.**

Specific Objections: Crawford objects to this request on the ground that the phrases "state offices" and "hazardous substances or hazardous waste information." Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations on the Property. Crawford and its consultants have provided technical reports and sampling data to DEQ in connection with environmental assessments and a removal action at the Property as discussed in the responses to Requests 64 and 71.

- 58. List all federal and state environmental laws and regulations under which Respondent has reported to federal or state governments, including but not limited to: Toxic Substances Control Act, 15 U.S.C. Sections 2601 et seq., (TSCA); Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Sections 1101 et seq., (EPCRA); and the Clean Water Act (the Water Pollution Prevention and Control Act), 33 U.S.C. Sections 1251 et seq., Oregon Hazardous Substance Remedial Action Law, ORS 465.315, Oregon Water Quality law, ORS Chapter 468(b), Oregon Hazardous Waste and Hazardous Materials law, ORS Chapters 465 and 466, or Oregon Solid Waste law, ORS Chapter 459. Provide copies of each report made, or if only oral reporting was required, identify the federal and state offices to which such report was made.**

Specific Objections: Crawford objects to this request on the ground that the phrases “environmental laws and regulations” and “federal and state offices” are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations on the Property. Crawford and its consultants have provided technical reports and sampling data to DEQ in connection with environmental assessments and a removal action at the Property as discussed in the responses to Requests 64 and 71.

- 59. Provide a copy of any registrations, notifications, inspections or reports required by the Toxic Substances Control Act, 15 USC § 2601 et seq., or state law, to be maintained or submitted to any government agency, including fire marshal(s), relating to PCB(s) or PCB(s) containing materials or liquids on any Property identified in response to Question 4.**

Specific Objections: Crawford objects to this request on the ground that the phrases “registrations, notifications, inspections or reports,” “state law” and “government agency” are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property. Information regarding other operators on the Property is contained in the response to Request 11.

- 60. Has Respondent or Respondent's contractors, lessees, tenants, or agents ever contacted, provided notice to, or made a report to the Oregon Department of State Lands “DSL” or any other state agency concerning an incident, accident, spill, release, or other event involving Respondent's leased state aquatic lands? If so, describe each incident, accident, spill, release, or other event and provide copies of all communications between Respondent or its agents and DSL or the other state agency and all documents that were exchanged between Respondent, its agents and DSL or other state agency.**

Specific Objections: Crawford objects to this request on the ground that the phrases “a report,” “any other state agency,” and “incident, accident, spill, release, or other event” are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

61. **Describe all notice or reporting requirements to DSL that you had under an aquatic lands lease or state law or regulation regarding incidents affecting, or activities or operations occurring on leased aquatic lands. Include the nature of the matter required to be reported and the office or official to whom the notice or report went to. Provide copies of all such notices or reports.**

Specific Objections: Crawford objects to this request on the ground that the phrases "notice or reporting requirements," "state law or regulation" and "incidents affecting" are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding operations at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

62. **Identify all leaks, spills, or releases into the environment of any waste, including petroleum, hazardous substances, pollutants, or contaminants, that have occurred at or from each Property, which includes any aquatic lands owned or leased by Respondent. In addition, identify and provide copies of documents regarding:**
- a. **when such releases occurred;**
  - b. **how the releases occurred (e.g., when the substances were being stored, delivered by a vendor, transported or transferred (to or from any tanks, drums, barrels, or recovery units), and treated).**
  - c. **the amount of each hazardous substances, pollutants, or contaminants so released;**
  - d. **where such releases occurred;**
  - e. **any and all activities undertaken in response to each such release or threatened release, including the notification of any agencies or governmental units about the release.**
  - f. **any and all investigations of the circumstances, nature, extent or location of each release or threatened release including, the results of any soil, water (ground and surface), or air testing undertaken;**
  - g. **all persons with information relating to these releases; and**
  - h. **list all local, state, or federal departments or agencies notified of the release, if applicable.**

- i. **documentation regarding, but not limited to, an oil slick across the Willamette River associated with the use of black sand as fill at the Property.**

Specific Objections: Crawford objects to this request on the ground that the phrases "leaks, spills or releases into the environment," "pollutants, or contaminants" and "persons with information" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

62(a)-(h): Leaks, Spills and Releases

Information regarding the black sand deposited at the Property by prior owners is discussed in the responses to Request 8 and 64.

62(i): Documentation Regarding the Black Sand

Copies of documents responsive to this request are included in Crawford's accompanying document production.

63. **Was there ever a spill, leak, release or discharge of waste, including petroleum, or hazardous substances, pollutant or contaminant into any subsurface disposal system or floor drain inside or under a building on the Property? If the answer to the preceding question is anything but an unqualified "no", identify:**
- a. **where the disposal system, or floor drains were located;**
  - b. **when the disposal system or floor drains were installed;**
  - c. **whether the disposal system or floor drains were connected to pipes;**
  - d. **where such pipes were located and emptied;**
  - e. **when such pipes were installed;**
  - f. **how and when such pipes were replaced, or repaired; and**
  - g. **whether such pipes ever leaked or in any way released such waste or hazardous substances into the environment.**

Specific Objections: Crawford objects to this request on the ground that the phrases "spill, leak, release or discharge of waste" and "subsurface disposal system" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this request.

64. **Has any contaminated soil ever been excavated or removed from the Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of documents regarding:**
- a. **amount of soil excavated:**

- b. location of excavation presented on a map or aerial photograph;
- c. manner and place of disposal and/or storage of excavated soil;
- d. dates of soil excavation;
- e. identity of persons who excavated or removed the soil, if other than a contractor for Respondent;
- f. reason for soil excavation;
- g. whether the excavation or removed soil contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the soil contained, and why the soil contained such constituents;
- h. all analyses or tests and results of analyses of the soil that was removed from the Property;
- i. all analyses or tests and results of analyses of the excavated area after the soil was removed from the Property;
- j. all persons, including contractors, with information about (a) through (i) of this request;
- k. documentation regarding, but not limited to the following:
  - i. any black sand used for fill at the Property.
  - ii. any soil excavated as a result of the decommissioning and removal of the following underground storage tanks.
    - 1. a 1,000-gallon gasoline underground storage tank, which was removed in 1987;
    - 2. a 1,000-gallon bunker oil underground storage tank, which was removed in 1987;
    - 3. a 5,000-gallon diesel fuel underground storage tank, which was removed in 1987; and
    - 4. a 2,500-gallon diesel fuel underground storage tank, which was removed in 1988.

Specific Objections: Crawford objects to this request on the ground that the phrases "contaminated soil" and "persons with information" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

64(a)-(k): Soil Excavation and Removal

In October 2001, Crawford's consultant Bridgewater removed approximately 381 tons of the black sand fill deposited in the southern portions at the Property in the late 1970s around the time that the City of Portland acquired those quadrants. This work was performed under DEQ oversight.

The black sand was temporarily placed in a lined, covered stockpile until it could be characterized for off-site disposal. Based on the results, the material was characterized as non-hazardous. The material and surface soil underlying the temporary stockpile area were disposed of at a licensed landfill outside the Investigation Area. The removal area was filled with 262 tons of imported granular fill. The area was seeded with native grass and covered with an erosion protection blanket.



Of the samples collected in the removal area, none had total PAH concentrations above benchmark criteria. In one sample, pyrene exceeded the benchmark by a factor of 1.4. About forty percent of the total PAH concentrations exceed the DEQ screening level value by a factor ranging from 0 to 1.88. PCBs were detected at 1.11 mg/kg. The samples exceeded certain benchmarks for metals, and one had a metal concentration approximately equal to DEQ's screening level value. Based on the results, the black sand material removed from the Property was characterized as non-hazardous for purposes of land-based disposal.

Responsive documents regarding the black sand removal and removal of underground storage tanks is contained in Crawford's accompanying document production.

- 65. Have you ever tested the groundwater under your Property? If so, please provide copies of all data, analysis, and reports generated from such testing.**

Specific Objections: Crawford objects to this request on the ground that the phrases "tested the groundwater" and "your Property" are vague and ambiguous in context. Crawford will construe this request as seeking documents regarding groundwater sampling or monitoring conducted by or for Crawford on the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Consultants for Crawford and consultants for CFMW, LLC have sampled groundwater for various constituents as discussed in the response to Request 71 below. Copies of responsive documents are contained in Crawford's accompanying document production.

- 66. Have you treated, pumped, or taken any kind of response action on groundwater under your Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of documents regarding:**
- a. reason for groundwater action;**
  - b. whether the groundwater contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the groundwater contained, and why the groundwater contained such constituents;**
  - c. all analyses or tests and results of analyses of the groundwater;**
  - d. if the groundwater action has been completed, describe the basis for groundwater action; and**
  - e. all persons, including contractors, with information about (a) through (c) of this request.**

Specific Objections: Crawford objects to this request on the ground that the phrases "treated, pumped, or taken any kind of response action," "your Property," "groundwater action," "pollutants or contaminants" and "basis for groundwater action" are vague and ambiguous in context. Crawford will construe this request as seeking information regarding any removal or remedial action, as those terms are defined at 42 U.S.C. 9601(23) and (24), of the groundwater underlying the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not performed a groundwater removal or remedial action at the Property.

**67. Was there ever a spill, leak, release or discharge of a hazardous substance, waste, or material into the Willamette River from any equipment, structure, or activity occurring on, over, or adjacent to the river? If the answer to the preceding question is anything but an unqualified "no", identify and provide copies of documents regarding:**

- a. the nature of the hazardous substance, waste, or material spilled, leaked, released or discharged;
- b. the dates of each such occurrence;
- c. the amount and location of such release;
- d. were sheens on the river created by the release;
- e. was there ever a need to remove or dredge any solid waste, bulk product, or other material from the river as a result of the release? If so, please provide information and description of when such removal/dredging occurred, why, and where the removed/dredged materials were disposed.

Specific Objections: Crawford objects to this request on the ground that the phrases "spill, leak, release or discharge," "hazardous substance, waste or material" and "adjacent to" are vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding releases of hazardous substances into the environment at or from the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

**67(a)-(e): Information Regarding any Spills or Discharges of Hazardous Materials onto the Willamette River**

Information regarding the black sand and black sand removal is contained in the responses to Requests 8 and 64, and copies of documents regarding these matters are included in Crawford's accompanying document production. After a reasonable search and diligent inquiry, Crawford has not identified any further information responsive to this request.

**68. For any releases or threatened releases of PCB(s), identify the date, quantity, location and type of PCB(s) or PCB(s) containing materials or liquids, and the nature of any response to or cleanup of the release.**

Specific Objections: Crawford objects to this request on the ground that the phrase "releases or threatened releases" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will

construe this request as seeking information regarding releases of PCBs into the soil, groundwater or surface water at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Except as noted in the response to Requests 47 and 64, Crawford has not identified any information responsive to this request.

- 69. For any releases or threatened releases of PCB(s) and/or PCB(s) containing materials or liquids, identify the quantity and type of waste generated as a result of the release or threatened release, the disposition of the waste, provide any reports or records relating to the release or threatened release, the response or cleanup and any records relating to any enforcement proceeding relating to the release or threatened release. Also provide information including, but not limited to the May 1987 release of PCB-contaminated oil as a result of a transformer overheating.**

Specific Objections: Crawford objects to this request on the ground that the phrase "releases or threatened releases" is vague and ambiguous in context. Crawford objects to this request as overbroad, unduly burdensome and not authorized by law to the extent it seeks information unrelated to sites within the Investigation Area. Crawford will construe this request as seeking information regarding releases of PCBs into the environment at the Property.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Except as noted in the response to Requests 47 and 64, Crawford has not identified any information responsive to this request.

- 70. Provide information and documentation concerning all inspections, evaluations, safety audits, correspondence and any other documents associated with the conditions, practices, and/or procedures at the Property concerning insurance issues or insurance coverage matters. Also provide documentation regarding, but not limited to the following:**
- a. a June 1997 Storm Water Sample Collection Report prepared by the Portland Bureau of Environmental Services; and**
  - b. any information pertaining to the assessment, sampling, or excavation of the black sand fill at the Property(ies).**

Specific Objections: Crawford objects to this request on the ground that the phrases "evaluations," "safety audits," "conditions, practices and/or procedures" and "concerning insurance and insurance coverage matters" are vague and ambiguous in context. Crawford also specifically objects to this request to the extent it seeks information and documents subject to the attorney client privilege and attorney work product doctrine.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

70(a) and (b): Insurance-Related Inspections and Audits

After a reasonable search and diligent inquiry, Crawford has not identified any documents responsive to this request. Information regarding assessments of the Property generally, including the June 1997 Storm Water Sample Collection Report and assessments and black sand removal, is contained in the response to Request 71.

- 71. Describe the purpose for, the date of initiation and completion, and the results of any investigations of soil, water (ground or surface), sediment, geology, and hydrology or air quality on or about each Property. Provide copies of all data, reports, and other documents that were generated by you or a consultant, or a federal or state regulatory agency related to the investigations that are described.**

Specific Objections: Crawford objects to this request on the ground that the phrases "results of any investigations" and "on or about the Property" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

*1987 Tank Removal and Soil Sampling*

In March 1987, Crawford removed three underground storage tanks in the northwest quadrant of the Property as described in the response to Request 8. Soil samples were collected near each tank and analyzed for hydrocarbons. No petroleum hydrocarbons were detected at the Bunker C or diesel tank. At the gasoline tank, de minimis concentrations were measured at 16 mg/kg. Subsequent assessments concluded that no releases of petroleum hydrocarbons occurred from any of these tanks, and that there is no potential for the tanks to have impacted the Willamette River.

*1988 Environmental Evaluation*

On April 4, 1988, SE/E prepared an environmental evaluation of the southern half and northeastern quadrant of the Property as discussed in the response to Request 9 above.

*1997 Stormwater Sampling*

In 1997, the City of Portland Bureau of Environmental Services and DEQ collected a storm water sample from the western drain pipe outlet from the Central Yard area to determine whether the operation of Columbia Forge I required an NPDES permit. The inspection concluded that storm water runoff did not directly discharge to a waterway and that implementation of best management practices would be adequate to mitigate any storm water runoff.

### *2000 Preliminary Assessment*

In 2000, Bridgewater performed a preliminary environmental assessment of the Property for Crawford under a DEQ Voluntary Cleanup Letter Agreement. The purpose was to determine the potential for contaminants to have been released on the Property and migrated to the Willamette River.

Bridgewater reviewed historical information and prior assessments, performed site reconnaissance and interviewed individuals. Bridgewater identified no releases of hazardous materials in the northeast quadrant. Aside from minor staining on concrete floors in Buildings 1 and 2/3, Bridgewater identified no information regarding leaks in the northwest quadrant. On the City-owned strip of land at N. Bradford Street, Bridgewater observed soil staining consistent with petroleum hydrocarbon releases from diesel locomotives and spillage from rail cars along Union Pacific Company's rail line. In the southern quadrants, Bridgewater found no indication of direct runoff to the Willamette River but noted that water that collected at certain points along the top of the bank could potentially flow to the River during periods of heavy rainfall.

Bridgewater assessed four potential sources including: (1) underground storage tanks removed from the Property in 1987; (2) storm water and infiltration from the Central Yard; (3) the black sand; and (4) historical operations. Regarding the former tanks, Bridgewater determined there was no potential for the tanks to have impacted the Willamette River based on sampling results. Bridgewater identified no reported releases of PCBS and found no reason to suspect tributyltin at the Property. Regarding the black sand, Bridgewater reported sampling results of 400 mg/kg of oil and grease, 294 mg/kg of total halogenated organics ("TOX"), xylenes at 0.31 mg/kg and barium at 0.31 mg/kg. Bridgewater concluded that neither PCBs, VOCs, PCBs, arsenic, nor tributyltin ("TBT") are constituents of interest at the Property.

Bridgewater's findings are described in its June 14, 2000 Preliminary Assessment report, which is included in Crawford's accompanying document production.

### *2001-2002 Beach Soil Sampling and Analysis*

In December 2001, Bridgewater collected 17 beach soil samples at the Property to assess metals. Copies of the results are included in Crawford's document production.

### *2001-2002 Preliminary Assessment of Soil and Groundwater*

From April to July 2001, Bridgewater collected soil and groundwater samples as well as additional samples of the black sand for analysis as part of its Preliminary Assessment. Results are documented in a report dated February 4, 2002, a copy of which is included in Crawford's accompanying document production.

### *October 2001 Black Sand Removal*

Information regarding this removal project is contained in the response to Request 64.

### *2005 Phase One Assessment*

In 2005, Evergreen Environmental Management ("EEM") conducted a Phase One assessment of the Property for CFMW, LLC to assess potential environmental risks associated with historical on-site and surrounding uses. In its Phase One Assessment, EEM conducted a site reconnaissance, conducted interviews and reviewed prior environmental reports, historical documents, regulatory files, aerial photographs and title documents.

EEM summarized its methodology and findings in a December 12, 2005 report. EEM summarized information regarding historical uses and adjacent off-site operations, materials usage and potential on-site and off-site sources and made recommendations regarding potential additional sampling at locations including the City-owned land adjacent to Union Pacific Railroad Company's rail spur and testing of building materials for lead or asbestos prior to any demolition activity. EEM's December 12, 2005 report is included in Crawford's accompanying document production.

### *2006 Soil and Groundwater Sampling*

In January 2006, EEM conducted sampling at the Property for CFMW, LLC to assess potential issues identified in its 2005 Phase One Assessment. EEM collected samples from seven soil borings located throughout the Property. Field screening of the soil borings identified no obvious indications of impacts. The only petroleum detected in any of the samples was lube oil at 445 parts per million in the 0-4 foot sample from the boring in the southeast quadrant and at 91.5 parts per million in the 4-8 foot sample from a boring in the northwest quadrant next to the former Lampros Steel Office Building. EEM also collected groundwater samples from each boring at four foot intervals. One sample in the southwest quadrant had trace levels of naphthalene at 0.0885 parts per billion. Other constituents analyzed tested non-detect. Based on these results, EEM concluded that no additional analysis or site investigation work was warranted. EEM's methodology and findings are summarized in a letter report dated February 9, 2006, a copy of which is included in Crawford's accompanying document production.

### *Ongoing Preliminary Source Control Evaluation*

In September 2006, Crawford's consultant Bridgewater submitted a sampling and analysis plan to DEQ as part of a preliminary source control evaluation for the Property. Based on DEQ comments, Bridgewater submitted a revised plan to DEQ in November 2006 and a further revised plan in March 2007.

Bridgewater's further revised plan identifies five drainage basins on the Property as well as various infiltration areas. The plan proposes an approach for stormwater screening at three sampling locations identified as representative of the various pathways. The plan also proposes to collect surface soil samples at stormwater runoff points. The samples would be analyzed for PAHs, certain specified metals and PCBs. The plan also proposes to test samples for phthalates based on DEQ's prior comments. In November 2007, Bridgewater proposed to add an additional sampling point based on its recent observation

of a seep in the southwest quadrant of the Property. Stormwater samples were subsequently collected in April 2007, September 2007, November 2007, and March 2008. A summary of this sampling is currently being prepared and will be submitted to DEQ upon completion.

Copies of responsive data, reports and other documents regarding the foregoing investigations, assessments and removal action are contained in Crawford's accompanying document production.

- 72. Describe any remediations or response actions you or your agents or consultants have ever taken on each Property either voluntarily or as required by any state or federal agency. If not otherwise already provided under this Information Request, provide copies of all investigations, risk assessments or risk evaluations, feasibility studies, alternatives analysis, implementation plans, decision documents, monitoring plans, maintenance plans, completion reports, or other document concerning remediation or response actions taken on each Property.**

Specific Objections: Crawford objects to this request on the ground that the phrases "remediations or response actions" and "concerning remediation or response actions" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Information regarding the black sand removal is contained in the response to Request 64. Documents regarding this removal project are also included in Crawford's accompanying document production.

- 73. Are you or your consultants planning to perform any investigations of the soil, water (ground or surface), geology, and hydrology or air quality on or about the Property? If so, identify:**
- a. what the nature and scope of these investigations will be;**
  - b. the contractors or other persons that will undertake these investigations;**
  - c. the purpose of the investigations;**
  - d. the dates when such investigations will take place and be completed; and**
  - e. where on the Property such investigations will take place; and**
  - f. any information regarding, but not limited to, any assessments, sampling, or remedial documentation pertaining to the excavation of black sand used as fill at the Property(ies).**

Specific Objections: Crawford objects to this request on the ground that the phrases "investigations of the soil, water (ground or surface), geology and hydrology or air quality" and "nature and scope" are vague and ambiguous in context.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

As discussed in the response to Request 71 above, Crawford's consultant Bridgewater submitted a sampling and analysis plan to DEQ as part of a preliminary source control evaluation for the Property. Bridgewater is currently completing the sampling program described in the plan. Information regarding the black sand removal is contained in the response to Request 64.

- 74. Provide the following information, when applicable, about you and/or your business(es) that are associated with each Property identified in response to Question 4:**
- a. state the current legal ownership structure (e.g., corporation, sole proprietorship);**
  - b. state the names and current addresses of current and past owners of the business entity or, if a corporation, current and past officers and directors;**
  - c. discuss all changes in the business(es)' legal ownership structure, including corporate successorship, since the inception of the business entity. For example, a business that starts as a sole proprietorship, but then incorporates after a few years, or a business that is subsequently acquired by and merged into a successor. Please include the dates and the names of all parties involved;**
  - d. the names and addresses of all current or past business entities or subsidiaries in which you or your business has or had an interest that has had any operational or ownership connection with the Properties identified in response to Question 4. Briefly describe the business activities of each such identified business entities or subsidiaries; and**
  - e. if your business formerly owned or operated a Property identified in response to Question 4, describe any arrangements made with successor owners or operators regarding liability for environmental contamination or property damage.**

Specific Objections: Crawford objects to this request on the ground that the phrases "ownership structure," "associated with each Property," "the business entity," "changes in the business(es) legal ownership structure," "corporate successorship," "all parties involved," "had an interest," "describe the business activity" and "arrangements made with successor owners or operators" are vague and ambiguous in context. Crawford further objects to this request on the ground that it is overbroad and not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e). Crawford further objects to this request on the ground of relevance, burden and the right to privacy to the extent it seeks home addresses and telephone numbers of individuals who can otherwise be contacted through counsel.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:



74(a): Legal Ownership Structure

Crawford is a domestic business corporation incorporated in the State of Oregon.

74(b): Owners, Officers and Directors

Crawford is a wholly-owned subsidiary of Manufacturing Management, Inc. Listed below are Crawford's former and current directors and officers. Individuals can be contacted through Crawford's counsel identified in the response to Request 3.

Bell, Ray Eugene	Hobbs, G.H.D.	Pardini, Anton U.
Bettencourt, Richard D.	Hobbs, P.A.D.	Philip, Robert W.
Buhler, Ned H.	Holman, Donald R.	Rosen, Barry A.
Carter, John D.	Johnson, Richard C.	Schnitzer, Dori
Cole, Richard	Josephson, Richard C.	Schnitzer, Leonard
Corn, William A.	Koeneke, Donald J.	Shanks, Edgar C.
Davidson, Ilene Dobrow	Lang, Kelly E.	Souther, John B.
Dufford, Philip	Latourette, John	Warring, T.F.
Ford, Charles A.	Leckberg, Winnie	Webb, Norman D.
Gibson, William	Leslie, Craig	Winifree, Herbert W.
Greenstein, Merle E.	Miller, Ralph	Witherspoon, Gregory J.
Hauseman, James	Norvell, G. Todd	
Hobbs, Bette	Novack, Kenneth M.	

74(c): Changes in Legal Ownership Structure

Crawford is an active Oregon corporation. Crawford was incorporated on December 28, 1976 as RaM Manufacturing Industries. On February 2, 1977, The Skookum Company, Inc. merged into RaM Manufacturing Industries, and RaM Manufacturing Industries changed its name to The Skookum Company, Inc. On July 11, 1983, The Skookum Company, Inc. changed its name to Crawford Street Corporation.

74(d): Names and Addresses of Business Entities or Subsidiaries

From August 11, 1977 to December 27, 1980, Crawford owned two-thirds of the stock of Columbia Forge I. Columbia Forge I's operations are described in the response to Request 11.

74(e): Arrangements Made with Successor Owners or Operators

Such arrangements are set forth in the February 10, 2006 Purchase and Sale Agreement between Crawford and Steel Hammer Properties, LLC, Bates stamped CRAW00010627-648 a copy of which is included in Crawford's accompanying document production.

- 75. List all names under which your company or business has ever operated and has ever been incorporated. For each name, provide the following information:**

- a. **whether the company or business continues to exist, indicating the date and means by which it ceased operations (e.g., dissolution, bankruptcy, sale) if it is no longer in business;**
- b. **names, addresses, and telephone numbers of all registered agents, officers, and operations management personnel; and**
- c. **names, addresses, and telephone numbers of all subsidiaries, unincorporated divisions or operating units, affiliates, and parent corporations if any, of the Respondent.**

Specific Objections: Crawford objects to this request on the ground that the phrases "operations management personnel" and "affiliates" are vague and ambiguous in context. Crawford further objects to this request on the ground that it is overbroad and not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e). Crawford further objects to this request on the ground of relevance, burden and the right to privacy to the extent it seeks home addresses and telephone numbers of individuals who can otherwise be contacted through counsel.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

75(a): The Company's Continued Existence

Crawford is an active Oregon corporation. Crawford was incorporated on December 28, 1976 as RaM Manufacturing Industries. On February 2, 1977, RaM Manufacturing Industries changed its name to The Skookum Company, Inc. On July 11, 1983, The Skookum Company, Inc. changed its name to Crawford Street Corporation.

75(b): Names, Addresses and Telephone Numbers of All Registered Agents, Officers and Operations Management Personnel

Crawford's current registered agent is CT Corporation System, 388 State Street, Suite 420, Salem, OR 97301. Listed below are Crawford's current officers. All officers can be contacted through counsel identified in the response to Request 3.

Bettencourt, Richard D. (Assistant Vice President)  
Carter, John D. (President)  
Josephson, Richard C. (Secretary)  
Witherspoon, Gregory J. (Vice President and Treasurer)

75(c): Subsidiaries, Divisions, Operating Units, Affiliates and Parents

Crawford is a wholly owned subsidiary of Manufacturing Management, Inc. Crawford does not have any subsidiaries.

- 76. Provide all copies of the Respondent's authority to do business in Oregon. Include all authorizations, withdrawals, suspensions and reinstatements.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Documents responsive to this request are included in Crawford's accompanying document production.

- 77. If Respondent is, or was at any time, a subsidiary of, otherwise owned or controlled by, or otherwise affiliated with another corporation or entity, then describe the full nature of each such corporate relationship, including but not limited to:**
- a. a general statement of the nature of relationship, indicating whether or not the affiliated entity had, or exercised, any degree of control over the daily operations or decision-making of the Respondent's business operations at the Property;**
  - b. the dates such relationship existed;**
  - c. the percentage of ownership of Respondent that is held by such other entity(ies);**
  - d. for each such affiliated entity provide the names and complete addresses of its parent, subsidiary, and otherwise affiliated entities, as well as the names and addresses of each such affiliated entity's officers, directors, partners, trustees, beneficiaries, and/or shareholders owning more than five percent of that affiliated entity's stock;**
  - e. also provide all documentation regarding, but not limited to the following entities:**
    - i. Asset Recovery;**
    - ii. Columbia Forge and Machine Works;**
    - iii. Crawford Street Corporation;**
    - iv. Custom Metal Cutting, Inc.;**
    - v. Lampros Steel Inc.;**
    - vi. Manufacturing Management Inc.;**
    - vii. RaM Management Industries, Inc.;**
    - viii. Schnitzer Investment Corporation;**
    - ix. Schnitzer Steel Industries, Inc.;**
    - x. Skookum Logging Supply Company;**
    - xi. The Skookum Co.;**
    - xii. TLS Steel Products Co.; and**
    - xiii. Willamette Forge and Machine Works.**
  - f. provide any and all insurance policies for such affiliated entity(ies) which may possibly cover the liabilities of the Respondent at each Property; and**
  - g. provide any and all corporate financial information of such affiliated entities, including but not limited to total revenue or total sales, net income, depreciation, total assets and total current assets, total liabilities and total current liabilities, net working capital (or net current assets), and net worth.**

Specific Objections: Crawford objects to this request on the ground that the phrases "operations management personnel," "affiliates," "which may possibly cover liabilities of the Respondent" and "corporate financial information" are vague and ambiguous in context. Crawford objects to this request on the ground that it is overbroad and not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e). Crawford will construe this request as seeking information regarding Crawford's corporate status and possessory interests and operations at the Property, if any, by the other entities identified in this request. Crawford further objects to this request on the ground of relevance, burden and the right to privacy to the extent it seeks home addresses and telephone numbers of individuals who can otherwise be contacted through counsel.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

77(a)-(c): Relationship With Affiliated Entities

Crawford has been a wholly-owned subsidiary of Manufacturing Management, Inc. at all times since December 26, 1980. Prior to that time, Crawford was a wholly-owned subsidiary of Pierce Pacific Manufacturing, Inc. Based on information identified by Crawford, none of these entities engaged in any operations at the Property.

77(d): Parent, Subsidiaries and Affiliated Entities

Crawford is wholly owned by Manufacturing Management, Inc., which is located at 3200 NW Yeon, Portland, OR 97210. Manufacturing Management Inc. owns 1,000 shares of Crawford Street Corporation. Listed below are the current officers and directors of Manufacturing Management, Inc. All individuals can be contacted through counsel identified in the response to Request 3.

Bettencourt, Richard D. (Assistant Vice President)  
Carter, John D. (Director)  
Hamaker, Donald W. (President)  
Josephson, Richard C. (Secretary; Director))  
Novack, Kenneth M. (Chairman of the Board)  
Witherspoon, Gregory J. (Vice President and Treasurer; Director)

77(e): Documentation Regarding Certain Specified Entities

Crawford's accompanying document production includes documents regarding the specified entities' possessory interests in, and/or operations at, the Property. After a reasonable search and diligent inquiry, Crawford has not identified any responsive documents regarding Schnitzer Steel Industries, Inc. or Schnitzer Investment Corp.

77(f): Insurance Policies

After a reasonable search and diligent inquiry, Crawford has not identified any information responsive to this subpart of this request.

77(g): Corporate Financial Information

Crawford's accompanying document production includes publicly-available financial information.

- 78. If Respondent is a partnership, please describe the partnership and provide a history of the partnership's existence. Provide a list of all current and past partners of any status (e.g., general, limited, etc.) and provide copies of all documents that create, govern, and otherwise rule the partnership, including any amendments or modifications to any originals of such documents, and at least five years of partnership meeting minutes.**

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford is not a partnership.

- 79. Is Schnitzer Steel Industries responsible for the environmental liabilities, if any, of Crawford Street Corporation, Columbia Forge and Machine Works, Willamette Forge and Machine Works, MMI, and RaM Management Industries, Inc.? If the answer is "no," explain. Identify all persons who may be responsible for the liabilities of Respondent arising from or relating to the release or threatened release of hazardous substances at the Property(ies), including, but not limited to, successors and individuals.**

Specific Objections: Crawford objects to this request on the ground that the phrases "responsible for environmental liabilities" and "persons who may be responsible for the liabilities of Respondent" are vague and ambiguous in context. Crawford objects to this request on the ground that it is overbroad and not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e). Crawford will construe this request as seeking information regarding Crawford's ability to pay for or to perform a cleanup at the Property or the Kittridge Property. Crawford further objects to this request on the ground of relevance, burden and the right to privacy to the extent it seeks home addresses and telephone numbers of individuals who can otherwise be contacted through counsel.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford is a domestic business corporation incorporated in the State of Oregon. After a reasonable search and diligent inquiry, Crawford has not identified any information regarding any assumption of liability by any of the entities listed in this request related to environmental conditions at the Property or the Kittridge Property.

- 80. Describe all sources reviewed or consulted in responding to this request, including, but not limited to:**
- a. the name and current job title of all individuals consulted;**
  - b. the location where all sources reviewed are currently residing; and**
  - c. the date consulted.**

Specific Objections: Crawford objects to this request on the ground that the phrases "describe all sources reviewed or consulted" and "location where all sources reviewed are currently residing" are vague and ambiguous in context. Crawford objects to the request on the ground that it is overbroad and not authorized by law to the extent that it seeks information that is not "relevant to . . . [t]he identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of," "[t]he nature or extent of a release or threatened release of hazardous substance or pollutant or contaminant," or "the ability of a person to pay for or to perform a cleanup" at the facility. 42 U.S.C. § 9604(e). Crawford will construe the undefined term "describe" in accordance with the definition of "identify" with respect to a document.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford's accompanying document production and privilege log includes the documents reviewed in responding to these requests. These documents reside at the addresses of Crawford and legal counsel listed in the responses to Requests 1 and 2, and at Bridgewater's offices at 4500 SW Kruse Way, Suite 110, Lake Oswego, OR 97035. In addition, the following individuals were consulted: Ross Rieke of Bridgewater; and Thomas Zelenka, Mathew Cusma and Jim Jakubiak on behalf of Crawford. These individuals may be contacted through Crawford's counsel.

- 81. If not already provided, identify and provide a last known address or phone number for all persons, including Respondent's current and former employees or agents, other than attorneys, who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous materials at, or transportation of hazardous substances, waste, or materials to or from, each Property identified in response to Question 4.**

Specific Objections: Crawford objects to this request on the ground that the phrases "have knowledge or information," "placement" and "hazardous materials" are vague and ambiguous in context. Crawford further objects to this request on the ground of relevance, burden and the right to privacy to the extent it seeks home addresses and telephone numbers of individuals who can otherwise be contacted through counsel.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Crawford has not engaged in any operations at the Property or the Kittridge Property. The following individuals have knowledge of Crawford's environmental assessments and removal action at the Property: Ross Rieke of Bridgewater; and Thomas Zelenka, Mathew Cusma and Jim Jakubiak on behalf of Crawford. These individuals may be contacted through Crawford's counsel.

- 82. If any of the documents solicited in this information request are no longer available, please indicate the reason why they are no longer available. If the records were destroyed, provide us with the following:**
- a. the document retention policy between 1937 and the present;**
  - b. the approximate date of destruction;**
  - c. a description of the type of information that would have been contained in the documents;**
  - d. the name, job title and most current address known by you of the person(s) who would have produced these documents; the person(s) who would have been responsible for the retention of these documents; the person(s) who would have been responsible for destroying the documents; and the person(s) who had and/or still have the originals or copies of these documents; and**
  - e. the names and most current addresses of any person(s) who may possess documents relevant to this inquiry.**

Specific Objections: Crawford objects to this request on the ground that the phrases "reason why they are no longer available," "type of information that would have been contained in the documents," "responsible for the retention" and "documents relevant to this inquiry" are vague and ambiguous in context. Crawford further objects to this request on the ground of relevance, burden and the right to privacy to the extent it seeks home addresses and telephone numbers of individuals who can otherwise be contacted through counsel.

Response: Subject to the General and Specific Objections stated above, Crawford responds as follows:

Copies of Crawford's document retention policies are included in Crawford's accompanying document production. After a reasonable search and diligent inquiry, Crawford has not identified any further information responsive to this request.

- 83. Provide a description of all records available to you that relate to all of the questions in this request, but which have not been included in your responses.**

Specific Objections: Crawford objects to this request on the ground that the phrases "provide a description," "available to you" and "relate to all of the questions in this request" are vague and ambiguous in context. Crawford further objects to this request as unduly burdensome and not authorized by law to the extent it seeks to require Crawford

to seek and obtain copies of records that are not already within Crawford's possession, custody or control. Crawford will construe the undefined phrase "provide a description" in accordance with the definition of "identify" with respect to a document.

Response: Subject to and without waiver of any of the General and specific objections or Specific Objections stated above, Crawford responds as follows:

Copies of responsive documents are included in Crawford's accompanying document production.